U.S. DEPARTMENT OF COMMERCE

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

NATIONAL OCEAN SERVICE

# **DESCRIPTIVE REPORT**

Type of Survey

**Field Examination** 

*Field No.* NRT4

*Registry No.* FE00502

# LOCALITY

State Illinois

General Locality Lake Michigan

Sublocality

<u>2006</u>

SW Coast of Lake Michigan

# **CHIEF OF PARTY**

Lucy Massimillo, Team Leader

# **LIBRARY & ARCHIVES**

Date

U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION	registry No. F00539
HYDROGRAPHIC TITLE SHEET	
	FIELD No. NRT4
State Illinois	
General Locality Michigan	
Sub-Locality SW Coast of Lake Michigan	
Scale 1:10,000 Date of Survey	August to November, 2006
Instructions Dated August 5, 2005 Project	t No. OPR-Y387-NRT4-05
Vessel NOAA Launch S3001	
Chief of Party Lucy Massimillo, Team Leader	
Surveyed by Lucy Massimillo, Sarah Borakove, & J	ason McDannold
Soundings by echo sounder Odom CVX2 Vertical	Beam Echosounder
Graphic record scaled by N/A	
Graphic record checked by N/A Automat	ted Plot N/A
<b>Verification by</b> Atlantic Hydrographic Branch	
Soundings in meters at Low Water Datum (LWD)	
<b>REMARKS:</b> (1) All times are in UTC.	
(2) This is a field examination survey.	
(3) Projection is UTM Zone 16N	
(4) LWD is at elevation 176.00 meters In Datum of 1985 (IGLD85).	nternational Great Lakes
Red, Bold, Italic notes were made during office proce	ssing

Red, Bold, Italic notes were made during office processing

# **TABLE OF CONTENTS**

A. AREA SURVEYED	2
B.1. EQUIPMENT	
B.2. QUALITY CONTROL	
Side Scan Sonar Quality Control	
Crosslines	
Junctions	4
B.3. CORRECTIONS TO ECHO SOUNDING	4
C. VERTICAL AND HORIZONTAL CONTROL	4
C.1. VERTICAL CONTROL	4
C.2. HORIZONTAL CONTROL	4
D. RESULTS AND RECOMMENDATIONS	5
D.1. CHART COMPARISON	5
General Agreement with Charted soundings	6
AWOIS Item Investigations	
Dangers to Navigation	7
Shoreline	7
D. 2. ADDITIONAL RESULTS	
Aids to Navigation and Other Detached Positions	
Ferry Routes	
Submarine Cables and Pipelines	
Bridges and Overhead Cables	

# **DESCRIPTIVE REPORT**

to accompany Field Examination F00502 OPR-Y387-NRT4-05

Year of Survey: 2006 Navigation Response Team 4 NOAA Launch S3001 Lucy Massimillo - Team Leader

## A. AREA SURVEYED

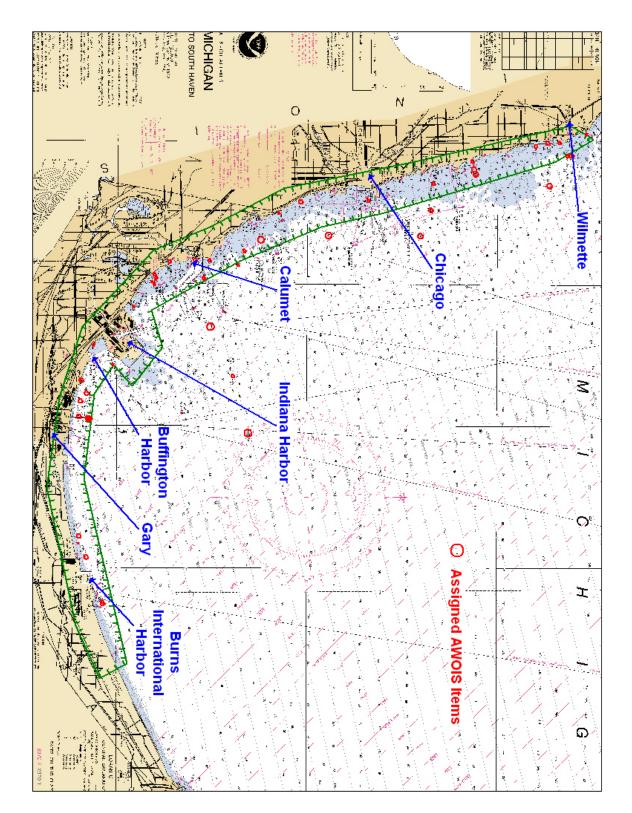
This Field Examination survey was conducted in accordance with the Project Letter Instructions for project OPR-Y387-NRT-05, Chicago Harbor, Illinois and Calumet Harbor, Indiana\*. The instructions are dated August 5, 2005.

Field Examination, F00502, consisted of Electronic Navigational Chart (ENC) verification and AWOIS investigation on the southwest coast of Lake Michigan including approximately 47 linear nautical miles (LNM) of shoreline from Wilmette, Illinois to Burns International Harbor, Indiana.

This area has extensive commercial facilities, including Chicago Harbor, Calumet Harbor, Indiana Harbor, the Port of Indiana, Buffington Harbor, Gary Harbor, Burns International Harbor, public utilities, and several recreational marinas. Chicago Harbor and Calumet Harbor together make one of the largest inland ports in the world. Recreational boats, commercial passenger vessels, barges and deep-draft vessels are the primary traffic in these harbors. The 20mile strip of Indiana shoreline, including Calumet Harbor, Indiana Harbor, Gary Harbor and the Port of Indiana, is the biggest concentration of steel plants in the world (according to The Center for Land Use Interpretation, <u>http://ludb.clui.org/ex/i/IN3134/</u>). These individual harbors & facilities were not surveyed by the field party.

Survey Dates: August 14, 2006 (DN: 226) to November 01, 2006 (DN: 305)

Survey limits are displayed graphically in green on the following page.



#### F00502

#### **B.1. EQUIPMENT**

Data were acquired by Navigation Response Team 4 using survey Launch 3001. The vessel was configured as described in the Data Acquisition and Processing Report (DAPR) \*. Major data acquisition systems are summarized below. *Concur.* 

NOAA Survey Launch 3001 was used to acquire position, sounding, imagery, and sound velocity data. Positions were acquired with a Trimble DSM212L Differential GPS (DGPS) beacon receiver. Soundings were acquired with an ODOM CVX2 single-beam echosounder (SBES) system. Imagery was acquired with a stern-towed KLEIN 3000 side scan sonar (SSS) system. Water column sound velocity data was acquired with an ODOM Digibar Pro DB1200 sound velocity profiler. *Concur.* 

There were no unusual vessel configurations encountered during this project. Concur.

#### **B.2. QUALITY CONTROL**

The integrity of the survey data for F00502 was insured by following the Field Procedures Manual v2.1, dated May, 2006, and the NOS Hydrographic Surveys Specifications and Deliverables Manual, dated June, 2006. *Concur.* 

Differential GPS (DGPS) was used for all hydrographic data acquired on this survey. Concur.

#### Side Scan Sonar Quality Control

The side scan sonar system frequencies used were 100kHz and 500kHz. The recorder was set to 50 or 75 meter range scale, depending on the water depth. There were no water depths greater than 15 meters in areas where side scan data was collected. *Concur.* 

Daily confidence checks were conducted by observing side scan imagery in the vicinity of known contacts, such as buoys or sand waves. Side scan data were considered satisfactory if these contacts could be distinguished throughout the entire range of the side scan trace. The confidence checks were performed daily at both frequencies. Coverage of 200% was obtained wherever possible in the required survey areas and where water depth and/or hazards permitted. Side scan sonar coverage was conducted to the 12-foot depth curve where possible. *Concur.* 

#### Crosslines

No crosslines were collected for this field examination. *Concur.* 

#### \*Filed with original field records.

F00502

#### Junctions

No junctioning surveys were provided for comparison with this project. Concur.

#### **B.3. CORRECTIONS TO ECHO SOUNDING**

While investigating side scan contacts, the least depth was often not digitized by the echosounder. However, the least depth was visible in the analog trace. Field Party members attempted to adjust the SBES gains and power levels to compensate for this. When this was not possible, the least depths were determined from the analog trace and then manually added to the digital data set during processing.

Echosounder data were corrected for sound velocity using the methods defined in the DAPR\*. A list of sound velocity profiles (SVP) can be found in the Daily Acquisition Log, located in the Separates directory\*. SVPs have also been added to the Pydro PSS for this project. *Concur.* 

#### C. VERTICAL AND HORIZONTAL CONTROL

#### C.1. VERTICAL CONTROL

All soundings were reduced to Low Water Datum with verified water levels and final zoning. *Concur.* 

The operating National Water Level Observation Network (NWLON) station at Calumet Harbor, IL (908-7044) served as datum control for the survey area. LWD for Calumet Harbor is at elevation 176.00 meters International Great Lakes Datum of 1985 (IGLD 85). *Concur.* 

Verified water levels from the N/OPS1 CO-OPS website were downloaded and applied to all soundings for this sheet. Water level corrections were applied to the soundings using CARIS HIPS and SIPS v6.0, Service Pack 2 Hotfixes 15 thru 19. *Concur.* 

Zoning was provided on the project CD. Field personnel made no changes to zoning, time correctors, or range ratios. *Concur.* 

A Request for Approved Water Levels letter was sent to N/OPS1 on December 27, 2006 and is included in Appendix IV\*. The final tides note was received on February 21, 2007. *Concur.* 

\*Filed with original field records.

#### **C.2. HORIZONTAL CONTROL**

The horizontal datum used for this survey is the North American Datum of 1983 (NAD 83), projected using UTM zone 16. The control reference station used for this survey was the USCG DGPS Beacon in the auto-select mode. *Concur.* 

#### F00502 NAVIGATION RESPONSE TEAM 4

Horizontal dilution of precision (HDOP) was monitored daily on Hypack. At no point did HDOP exceed 4.00, and adequate satellite coverage was maintained throughout the survey period. *Concur.* 

All positioning equipment was operated in a manner consistent with the manufacturer requirements and as described in the DAPR\*. There were no equipment malfunctions which affected the positional quality of the data. *Concur.* 

\*Filed with original field records.

#### **D. RESULTS AND RECOMMENDATIONS**

#### **D.1. CHART COMPARISON**

Chart	Edition	Print Date	Scale
14500	27 <sup>th</sup>	10/1/2002	1:1,500,000
14905	30 <sup>th</sup>	8/1/2003	1:120,000
14926	11 <sup>th</sup>	5/1/2006	1:60,000
14927	25 <sup>th</sup>	8/1/2006	1:60,000
14928	22 <sup>nd</sup>	4/1/2005	1:15,000
14929	24 <sup>th</sup>	2/1/2003	1:15,000

There are six charts and six ENCs affected by this survey:

ENC Cell	Last Updated	Corresponding Chart	Edition
US4IL10M	10/22/2004	14927	1
US4IN01M	12/6/2006	14905	4
US5IL11M	10/26/2006	14928	4
US5IL21M	2/1/2006	14929	4
US5IN11M	6/26/2006	14926	4

#### **General Agreement with Charted soundings**

Soundings were only collected to verify the least depth (LD) of sonar contacts. Concur.

#### **AWOIS Item Investigations**

There were a total of 51 AWOIS items assigned to the Field Party. Thirty-three of these items were investigated with side scan sonar and the LDs of 21 of these were verified. Of the AWOIS items, which were not investigated, four were previously investigated during Sheets A & B of this project (H11451 & H11452), eight were determined to be in a location where it was too dangerous to conduct sidescan operations, and six were unable to be surveys due to time constraints.

AWOIS #	ITEM	INVESTIGATED?	LEAST DEPTH?	COMMENTS
				Too Close to Breakwater Retain as
1938	Submerged Pipe	NO		charted
1950	Car Ferry	YES	YES	Item Found
1960	Wreck	YES	YES	Item Found
1961	Wreck	YES	YES	Item Found
1967	Wreck	NO		Too Shallow Item Found
2011	Wreck	NO		Too Shallow Retain as charted
2732	Wreck	YES	NO	Item Disproved
8860	Obstruction	NO		Too Shallow Retain as charted
8861	Obstruction	YES	NO	Item Disproved
13017	Wreck	NO		Too Shallow <i>Retain as charted</i>
13018	Crib	NO		Too Shallow <i>Retain as charted</i>
13019	Crib	YES	YES	Item Found
13020	Crib	YES	YES	Item Found
13021	Crib	YES	Maybe?	Look Into This Item Found
13022	Wreck	NO		Too Shallow <i>Retain as charted</i>
13023	Wreck	YES	YES	Item Found
13024	Obstruction	YES	YES	DP only <b>Retain as charted</b>
13025	Wreck	YES	NO	Item Disproved
13026	Wreck	YES	NO	Item Disproved
13027	Wreck	YES	NO-Yes	Item Found
13028	Wreck	YES	NO	Item Found
13029	Wreck	YES	YES	Item Found
			Covered in H11451 Not	
13030	Wreck	NO		Investigated
13031	Wreck	YES	NO	Item Disproved
13032	Wreck	NO		Too Shallow Retain as charted
13033	Reef	YES	YES	Item Found
13034	Crib	YES	YES	Item Found
13035	Wreck	YES	NO	Item Found

The following is a list of AWOIS items assigned to the Field Party:

F00502

#### NAVIGATION RESPONSE TEAM 4

10/9/2008

				Covered in H11452 Not
13036	Wreck	NO	Investigated	
1000-	<b>.</b> .			Covered in H11452 <i>Not</i>
13037	Rock	NO		Investigated
10000	\\/reel/	NO		Covered in H11452 Not
13038	Wreck	NO		Investigated
13039	Wreck			Hammond Item Disproved
13040	Crib			Hammond Item Disproved
13041	Crib			Hammond Item Disproved
13042	Crib			Hammond Item Disproved
13043	Crib			Hammond Item Disproved
13044	Crib			Hammond Item Disproved
13045	Crib	YES	YES	Item Found
10010				Visible, but too Shallow for SSS or
13046	Wreck	YES	YES	DP Item Found
13047	Wreck	YES	YES	Visible, but too Shallow for SSS or DP <i>Item Found</i>
		-	_	Item Found
13048	Wreck	YES	NO	
13049	Crib	YES	YES	Retain as charted
13050	Crib	YES	YES	Retain as charted
13051	Pile	YES	NO	Retain as charted
13052	Crib	YES	YES	Item Found
13053	Wreck	YES	YES	Item Found
10051	0.1	N/50		No LD - Dive Boat in the way Item
13054	Crib	YES		Found
13055	Crib	YES	YES	Item Found
13056	Crib	YES	YES	Item Found
13057	Crib	YES	YES	Retain as charted
13058	Crib	YES	YES	Item Found

Results of all AWOIS investigations are contained in Appendix II\*. Concur.

#### **Dangers to Navigation**

No Dangers to Navigation were submitted for this project. One Danger to Navigation was submitted by the Office processor. See Appendix I\* for more information.

#### \*Filed with original field records.

#### Shoreline

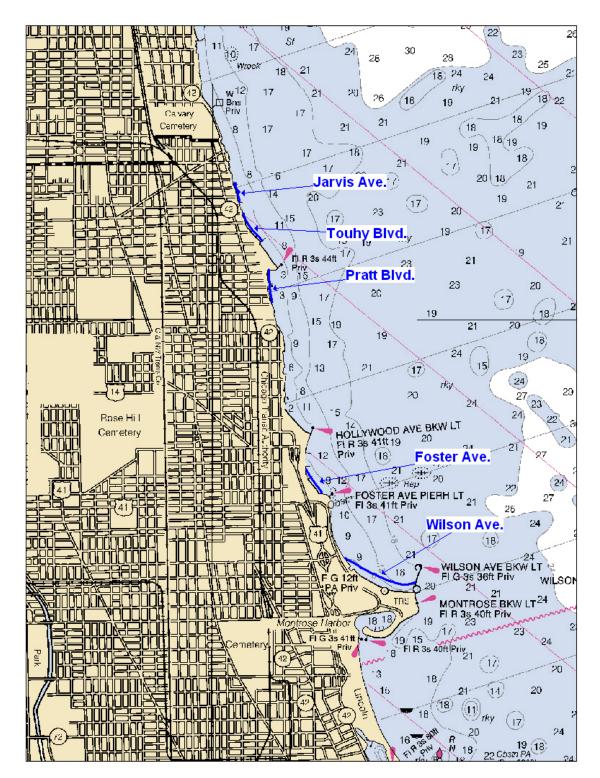
Several areas of beach shoreline, north of Chicago were determined to be quite different from what was represented on the chart. In these areas, the shoreline has migrated east (into the lake) through the addition of sand, either though natural or man-made methods. This is not noticeable in the smaller scale charts (chart 14905) but is evident when comparing the shoreline in the larger scale charts (charts 14927 & 14926). In these instances, the field party acquired new shoreline data through the use of the Trimble Backpack GPS unit. *Concur.* 

#### F00502 NAVIGATION RESPONSE TEAM 4

10/9/2008

In these gently sloped beach areas, the exact location of the shoreline changes due to water level. Therefore, the field party had to establish some parameters in order to consistently and accurately collect the shoreline data. Because there are no tides in Lake Michigan it was not possible to determine the time of Low Water, prior to data acquisition. However, a calm day was chosen in order to minimize the effect of water level. Additionally, while walking the shoreline with the Trimble unit, the surveyor stayed just lakeward of the berm. *Concur.* 

Areas where new shoreline was acquired include the beaches at Wilson Avenue, Foster Avenue, Pratt Boulevard, Touhy Avenue, and Jarvis Avenue. A graphic, showing the locations of these beaches is provided on the next page. Chartlets, detailing the shoreline discrepancies are included on the following pages. *Concur.* 

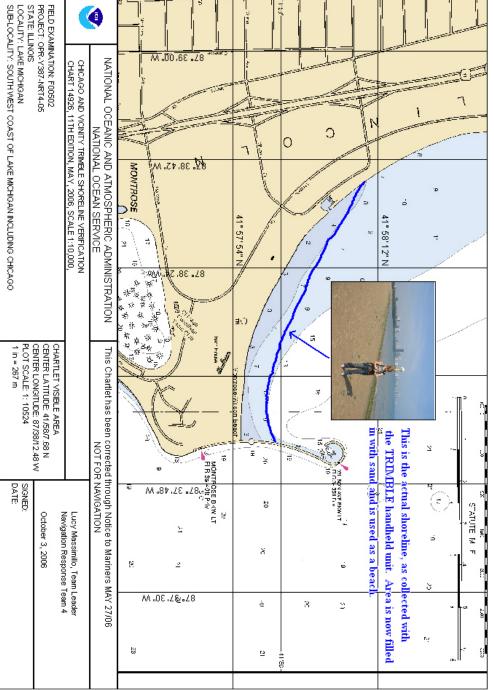


#### **NAVIGATION RESPONSE TEAM 4**

10/9/2008

( Ē M. 00.68 .28 N С 0 in la 7 MONTHOSE 82. 38. 45. M 5



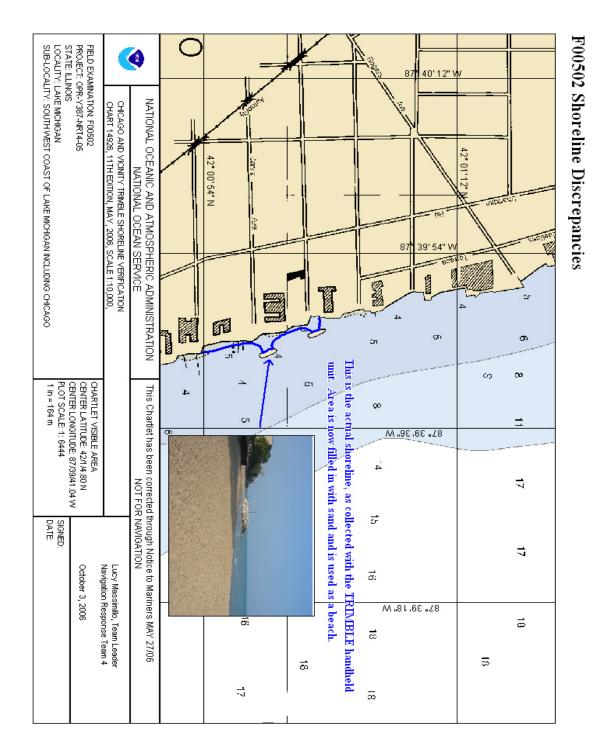


F00502 Shoreline Discrepancies PFILD EXAMINATION: F00502 PROJECT: OFR-Y387-NRT4-05 STATE ILLINOIS LOCALITY: LAKE MICHIGAN SUB-LOCALITY: SOUTH WEST COAST OF LAKE MICHIGAN INCLUDING CHICAGO ( I. NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SERVICE CHICAGO AND VICINITY TRIMBLE SHORELINE VERIFICATION CHART 14926, 11TH EDITION, MAY, 2006, SCALE 1:10,000, E i L. L ĺà, -LACHOL \*\* A iksi; i. Б ПИСОГИ XAA9 1 1 e 6 CHARTLET VISIELE AREA CENTER LATITUDE: 41/58/43.80 N CENTER LONGITUDE: 87/39/0.72 W PLOT SCALE: 1: 8306 1 in = 211 m This Chartlet has been corrected through Notice to Mariners MAY 27/06 NOT FOR NAVIGATION 3 00 o: unit:/ This is the actual shoreli ò s the actual shorehine, as collected with the TRIMBL Area is now filled in with sand and is used as a beach. = h đ -.1 Cost FOSTER AVE PIERHEAD LT R 35 / ft. Priv SIGNED: DATE: ī - 5 às collected with the TR October 3, 2006 Navigation Response Team 4 Lucy Massimillo, Team Leader 41° 59' 06" N 41° 58' 48" N × ಹೆ ಕ MBLE handhel 8 ÿ  $\Sigma^{\dagger}$ ‡₽ 8

t FIELD EXAMINATION: F00502 PROJECT: OPR-Y387-NRT4-05 STATE: ILLINOIS LOCALITY: LAKE MICHIGAN ( SUB-LOCALITY: SOUTH WEST COAST OF LAKE MICHIGAN INCLUDING CHICAGO Ô - HAL - 199 NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION CHICAGO AND VICINITY TRIMBLE SHORELINE VERIFICATION CHART 14926, 11TH EDITION, MAY, 2006, SCALE 1:10,000, al. 87 39'36" W DOINS 3 22 Ŀ. T ы ŝ ۱ ۲ R. ... 2 a: 7 э Ξ 42" 00'18" N 42° 00' 36" N ~ ÷ Б π, .i d, M.00.68.28 ź w. unit. Areas are now filled in with sand and are used as beaches. These are the actual shorelines, as collected with the TRIMBLE handheld á à CHARTLET VISIBLE AREA CENTER LATITUDE: 42/0/27.36 N CENTER LONGITUDE: 87/38/53.16 W PLOT SCALE: 1: 10524 1 in = 267 m This Chartlet has been corrected through Notice to Mariners MAY 27/06 NOT FOR NAVIGATION ы. ----В 2 Ξ R SIGNED: DATE: -----Π Lucy Massimillo, Team Leader Navigation Reponse Team 4 October 3, 2006 ŝ 郡 8 ę. 3 \_

# F00502 Shoreline Discrepancies

F00502



#### **D. 2. ADDITIONAL RESULTS**

#### Aids to Navigation and Other Detached Positions

All Aids to Navigation in the survey area were found to be on station and serving their intended purpose. The field party has no recommendations on these Aids to Navigation. *Concur.* 

#### **Ferry Routes**

There are no charted Ferry routes within the survey area. However water taxis and tour boat regularly in the vicinity of the Chicago Harbor. *Concur.* 

#### **Submarine Cables and Pipelines**

There were several submarine cables and pipelines located within the survey area. Many of these pipelines connected Potable Water Intake (PWI) cribs to the shore. In general, submarine pipelines and cables were not investigated by the field party. However, the locations of three cribs offshore of the Grosspointe Light were found to be significantly different than of the currently charted position. In this case, the pipelines were also charted in the wrong location. The water depth was too shallow for side scan operations, so the field party attempted to determine the correct positions of the pipelines using the singlebeam echosounder. *Concur.* 

#### **Bridges and Overhead Cables**

There are no bridges or overhead cables in the area investigated by the Field Party. *Concur.* 

F00502

# **APPROVAL SHEET**

## OPR-Y387-NRT4-05 Field Examination Survey Cleveland Approaches to Cleveland Harbor Ohio Registry No. F00502

Field operations for this basic hydrographic survey were conducted under my daily supervision with frequent checks of progress and adequacy. All field sheets, this Descriptive Report, and all accompanying records and data are approved.

This survey is adequate to supersede all prior surveys in common areas, and for application to the relevant NOS nautical charts.

Respectfully, Submitted:

Lucy Massimillo Team Leader, Navigation Response Team 4

# APPENDIX I

# DANGERS TO NAVIGATION REPORT

# **F00502 Dangers to Navigation**

<b>Registry Number:</b>	F00502
State:	Illinois
Locality:	Lake Michigan
Sub-locality:	South West Coast of Lake Michigan including Chicago
Project Number:	OPR-Y387-NRT4-05
Survey Date:	09/25/2006

# **Charts Affected**

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
14927	25th	08/01/2006	1:60,000 (14927_1)	USCG LNM: 05/20/2008 (05/20/2008) CHS NTM: None (04/25/2008) NGA NTM: 09/09/2006 (05/24/2008)
14926	11th	05/01/2006	1:60,000 (14926_31)	USCG LNM: 05/20/2008 (05/20/2008) CHS NTM: None (04/25/2008) NGA NTM: 09/09/2006 (05/24/2008)
14905	31st	01/01/2007	1:120,000 (14905_1)	USCG LNM: 10/23/2007 (02/26/2008) CHS NTM: None (01/25/2008) NGA NTM: 09/09/2006 (03/01/2008)
14901	14th	10/01/2002	1:500,000 (14901_1)	[L]NTM: ?
14500	27th	10/01/2002	1:1,500,000 (14500_1)	[L]NTM: ?

\* Correction(s) - source: last correction applied (last correction reviewed--"cleared date")

# Features

No.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	DTON #1- 18179/1 - AWOIS 13033	Obstruction	4.39 m	41° 47' 32.7" N	087° 33' 08.6" W	13033

# 1 - DR\_DToN

# 1.1) DTON #1- 18179/1 - AWOIS 13033

# **DANGER TO NAVIGATION**

# **Primary Feature for AWOIS Item #13033**

Search Position:	41° 47' 32.6" N, 087° 33' 08.6" W
Historical Depth:	[None]
Search Radius:	300
Search Technique:	S2, MB, ES
<b>Technique Notes:</b>	[None]

#### **History Notes:**

L946/00-- 11/1/99; AN ARTIFICAL REEF WAS CONSTRUCTED OF STONE RUBBLE IN THE LAKE MICHIGAN, APPROXIMATELY 1.4 MILES FROM SHORE OPPOSITE 57TH STREET. THE ARTIFICAL REEF EXTENDED 500 TO 750 IN LENGTH AND THE WIDTH IS 20 TO 35 FT. THE HEIGHT OF THE REEF WAS 10 FT. THE REEF RUN PARALLEL WITH THE SHORELINE. ■ LNM 23/00-- ADD DOTTED DANGER CURVE AND LABEL SUBM REEF. POSTION FROM LAT. 41/47/34.7N, LONG. 87/33/08.3W TO LAT. 41/47/28.8N, LONG. 87/33/08.9W. (ENTERED 3/05 CEH)

## **Survey Summary**

Survey Position:	41° 47' 32.7" N, 087° 33' 08.6" W
Least Depth:	4.39 m (= 14.41 ft = 2.402 fm = 2 fm 2.41 ft)
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-268.18:32:49.804 (09/25/2006)
Survey Line:	f00502 / 3001sb / 2006-268 / 006a1813
Profile/Beam:	18179/1
Charts Affected:	14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

This charted submerged reef (AWOIS 13033) was seen on both 100% and 200% SSS records. SB investigation was conducted and the contact was seen on the echosounder trace. Echosounder data was corrected to Low Water Datum using observed verified tides with final zoning. The height of the reef is 2.3m and the least depth obtained was 14.41ft. The least depth obtained on the contact is shoaler than the charted surrounding depth area.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
f00502/3001sb/2006-268/006a1813	18179/1	0.00	000.0	Primary

ChicagoAwois	AWOIS # 13033	2.81	345.0	Secondary (grouped)
f00502/3001sss500k/2006-257/ch060914093400	0001	16.24	211.2	Secondary (grouped)
f00502/3001sss500k/2006-255/ch060912113800	0002	17.18	217.9	Secondary (grouped)
f00502/3001sss500k/2006-255/ch060912114400	0001	21.81	182.3	Secondary (grouped)
f00502/3001sss500k/2006-255/ch060912120300	0001	51.91	030.2	Secondary (grouped)

# **Hydrographer Recommendations**

Hydrographer believes that this charted submerged reef is charted at the correct position. Hydrographer reccommends updating least depth to reflect current survey findings.

#### **Cartographically-Rounded Depth (Affected Charts):**

14ft (14926\_31, 14927\_1, 14905\_1)

2 ¼fm (14500\_1)

14ft (14901\_1)

# S-57 Data

Geo object 1:	Obstruction (OBSTRN)
Attributes:	INFORM - Reef
	QUASOU - 6:least depth known
	SORDAT - 20061020
	SORIND - US,US,nsurf,F00502
	TECSOU - 1,2:found by echo-sounder,found by side scan sonar
	VALSOU - 4.392 m
	VERDAT - 12:Mean lower low water
	WATLEV - 3:always under water/submerged
Geo object 2:	Sounding (SOUNDG)
Attributes:	SORDAT - 20061020
	SORIND - US,US,nsurf,F00502
	TECSOU - 1: found by echo-sounder

## **Office Notes**

Concur. Retain reef as charted and chart at a least depth of 14 ft.

# APPENDIX II SURVEY FEATURES REPORT

# F00502 AWOIS Items

<b>Registry Number:</b>	F00502
State:	Illinois
Locality:	Lake Michigan
Sub-locality:	South West Coast of Lake Michigan including Chicago
Project Number:	OPR-Y387-NRT4-05
Survey Dates:	08/14/2006 - 10/31/2006

# **Charts Affected**

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
14926	11th	05/01/2006	1:10,000 (14926_18)	USCG LNM: None (02/26/2008) CHS NTM: None (01/25/2008) NGA NTM: None (03/01/2008)
14926	11th	05/01/2006	1:10,000 (14926_2)	USCG LNM: 11/22/1994 (02/26/2008) CHS NTM: None (01/25/2008) NGA NTM: None (03/01/2008)
14926	11th	05/01/2006	1:10,000 (14926_10)	USCG LNM: 08/20/2002 (02/26/2008) CHS NTM: None (01/25/2008) NGA NTM: None (03/01/2008)
14926	11th	05/01/2006	1:10,000 (14926_9)	USCG LNM: 06/03/2003 (02/26/2008) CHS NTM: None (01/25/2008) NGA NTM: None (03/01/2008)
14926	11th	05/01/2006	1:10,000 (14926_8)	USCG LNM: 05/21/2002 (02/26/2008) CHS NTM: None (01/25/2008) NGA NTM: None (03/01/2008)
14926	11th	05/01/2006	1:10,000 (14926_3)	USCG LNM: 05/11/1993 (02/26/2008) CHS NTM: None (01/25/2008) NGA NTM: None (03/01/2008)
14926	11th	05/01/2006	1:10,000 (14926_1)	USCG LNM: 04/14/1998 (02/26/2008) CHS NTM: None (01/25/2008) NGA NTM: 09/09/2006 (03/01/2008)
14926	11th	05/01/2006	1:10,000 (14926_5) 1:10,000 (14926_4)	USCG LNM: 01/03/2006 (02/26/2008) CHS NTM: None (01/25/2008) NGA NTM: None (03/01/2008)
14905	31st	01/01/2007	1:15,000 (14905_4)	USCG LNM: None (02/26/2008) CHS NTM: None (01/25/2008) NGA NTM: None (03/01/2008)
14926	11th	05/01/2006	1:15,000 (14926_13)	USCG LNM: 06/18/2002 (02/26/2008) CHS NTM: None (01/25/2008) NGA NTM: None (03/01/2008)
14926	11th	05/01/2006	1:15,000 (14926_15)	USCG LNM: 06/13/2006 (02/26/2008) CHS NTM: None (01/25/2008) NGA NTM: 01/23/1999 (03/01/2008)
14926	11th	05/01/2006	1:15,000 (14926_14)	USCG LNM: 04/27/1993 (02/26/2008) CHS NTM: None (01/25/2008) NGA NTM: None (03/01/2008)
14929	24th	02/01/2003	1:15,000 (14929_1)	USCG LNM: 03/06/2007 (02/26/2008) CHS NTM: None (01/25/2008) NGA NTM: 03/20/1999 (03/01/2008)
14928	22nd	04/01/2005	1:15,000 (14928_1)	USCG LNM: 05/20/2008 (05/20/2008) CHS NTM: None (04/25/2008) NGA NTM: 02/14/2004 (05/24/2008)

14926	11th	05/01/2006	1:20,000 (14926_11)	USCG LNM: 08/29/2006 (02/26/2008) CHS NTM: None (01/25/2008) NGA NTM: None (03/01/2008)
14926	11th	05/01/2006	1:20,000 (14926_12)	USCG LNM: 03/06/2007 (02/26/2008) CHS NTM: None (01/25/2008) NGA NTM: 02/27/1999 (03/01/2008)
14927	25th	08/01/2006	1:60,000 (14927_1)	USCG LNM: 05/20/2008 (05/20/2008) CHS NTM: None (04/25/2008) NGA NTM: 09/09/2006 (05/24/2008)
14926	11th	05/01/2006	1:60,000 (14926_32)	USCG LNM: 07/24/2007 (05/20/2008) CHS NTM: None (04/25/2008) NGA NTM: 11/28/1998 (05/24/2008)
14926	11th	05/01/2006	1:60,000 (14926_31)	USCG LNM: 05/20/2008 (05/20/2008) CHS NTM: None (04/25/2008) NGA NTM: 09/09/2006 (05/24/2008)
14905	31st	01/01/2007	1:120,000 (14905_1)	USCG LNM: 10/23/2007 (02/26/2008) CHS NTM: None (01/25/2008) NGA NTM: 09/09/2006 (03/01/2008)
14901	14th	10/01/2002	1:500,000 (14901_1)	[L]NTM: ?
14500	27th	10/01/2002	1:1,500,000 (14500_1)	[L]NTM: ?

\* Correction(s) - source: last correction applied (last correction reviewed--"cleared date")

# Features

No.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	AWOIS #13017- UNKNOWN	AWOIS	[no data]	[no data]	[no data]	
1.2	AWOIS #13018- OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	
1.3	AWOIS #1938- OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	
1.4	AWOIS #2011- UNKNOWN WRECK	AWOIS	[no data]	[no data]	[no data]	
1.5	LOUISVILLE AWOIS #2732	AWOIS	[no data]	[no data]	[no data]	
1.6	AWOIS #8860- OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	
1.7	OBSTRUCTION AWOIS #8861	AWOIS	[no data]	[no data]	[no data]	
1.8	AWOIS #13022- GEO. MORLEY	AWOIS	[no data]	[no data]	[no data]	
1.9	AWOIS 13025-UNKNOWN	AWOIS	[no data]	[no data]	[no data]	
1.10	AWOIS 13026 - UNKNOWN	AWOIS	[no data]	[no data]	[no data]	
1.11	AWOIS 13031 - UNKNOWN	AWOIS	[no data]	[no data]	[no data]	
1.12	AWOIS #13032- UNKNOWN	AWOIS	[no data]	[no data]	[no data]	
1.13	AWOIS #13039- UNKNOWN	AWOIS	[no data]	[no data]	[no data]	
1.14	AWOIS #13040- OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	

1.1.7			r 1.7	r 1.3	r 1.3	
1.15	AWOIS #13041- OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	
1.16	AWOIS #13042- OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	
1.17	AWOIS #13043- OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	
1.18	AWOIS #13044- OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	
1.19	AWOIS 13046 - UNKNOWN	AWOIS	[no data]	[no data]	[no data]	
1.20	AWOIS 13047 - UNKNOWN	AWOIS	[no data]	[no data]	[no data]	
1.21	AWOIS 13049 - OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	
1.22	AWOIS 13051 - OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	
1.23	AWOIS 13053 - JOHN A	AWOIS	[no data]	[no data]	[no data]	
1.24	AWOIS # 13035 - Wreck- 0001	SSS	[None]	41° 44' 49.8" N	087° 31' 43.8" W	13035
1.25	AWOIS 13029- 2785/1	Wreck	12.58 m	41° 55' 58.3" N	087° 33' 27.5" W	13029
1.26	AWOIS 13023- 8090/1	Wreck	8.64 m	42° 02' 43.3" N	087° 37' 05.1" W	13023
1.27	AWOIS 13019- 2889/1	Crib (covered at MHW)	7.88 m	42° 03' 50.6" N	087° 39' 14.8" W	13019
1.28	AWOIS 13020- 1002/1	Crib (covered at MHW)	6.14 m	42° 03' 55.3" N	087° 39' 15.4" W	13020
1.29	AWOIS 13021- 8607/1	Crib (covered at MHW)	6.33 m	42° 03' 46.9" N	087° 39' 13.4" W	13021
1.30	AWOIS 13034- 1897/1	Crib (covered at MHW)	7.21 m	41° 46' 41.1" N	087° 32' 21.5" W	13034
1.31	AWOIS 1961- 3760/1	Sounding	6.32 m	41° 46' 20.5" N	087° 31' 19.5" W	1961
1.32	AWOIS 13028- 8005/1	Wreck	9.15 m	41° 56' 32.7" N	087° 35' 09.6" W	13028
1.33	AWOIS 1960- 1315/1	Sounding	7.84 m	41° 46' 04.9" N	087° 23' 30.2" W	1960
1.34	AWOIS 1950- 5301/1	Wreck	11.34 m	41° 44' 59.0" N	087° 26' 56.4" W	1950
1.35	AWOIS 13057- 0002	Crib (covered at MHW)	[None]	41° 39' 15.2" N	087° 07' 29.4" W	13057
1.36	AWOIS 13045- 8408/1	Crib (covered at MHW)	7.99 m	41° 39' 47.4" N	087° 24' 18.6" W	13045
1.37	AWOIS 13048- 4565/1	Wreck	4.32 m	41° 38' 07.9" N	087° 23' 17.8" W	13048
1.38	AWOIS 13050- 4808/1	Sounding	8.52 m	41° 38' 04.0" N	087° 21' 43.2" W	13050
1.39	AWOIS 13052- 1457/1	Sounding	9.80 m	41° 38' 26.3" N	087° 20' 32.8" W	13052
1.40	AWOIS 13058- 2829/1	Sounding	9.72 m	41° 38' 31.2" N	087° 20' 31.3" W	13058
1.41	AWOIS 13054- 2481/1	Crib (covered at MHW)	4.96 m	41° 37' 57.3" N	087° 12' 10.2" W	13054
1.42	AWOIS 13055- 1694/1	Crib (covered at MHW)	7.63 m	41° 38' 23.0" N	087° 10' 44.0" W	13055
1.43	AWOIS 13056- 8590/1	Crib (covered at MHW)	11.38 m	41° 39' 13.9" N	087° 07' 36.7" W	13056
1.44	AWOIS 13024 - Foularea/pier - dp1	Sounding	[None]	41° 58' 41.1" N	087° 38' 45.6" W	13024
1.45	AWOIS 1967- DP2569	Wreck	[None]	41° 48' 29.7" N	087° 35' 00.1" W	1967
1.46	AWOIS 13027 - 6136/1	Sounding	5.39 m	41° 56' 36.1" N	087° 37' 12.5" W	13027

# 1 - DR\_AWOIS

# 1.1) AWOIS #13017 - AWOIS #13017- UNKNOWN

# No Primary Survey Feature for this AWOIS Item

Search Position:	$42^{\circ}04'41.0''$ N, $087^{\circ}40'44.5''$ W
Historical Depth:	[None]
Search Radius:	100
Search Technique:	S2, ES,MB,SD, DI
<b>Technique Notes:</b>	[None]

#### **History Notes:**

LNM 11/8--5/26/81; A SUNKEN WRECK REPORTED 100 YARDS 012°T FROM WILMETTE HARBOR N. (ENTERED 3/05 CEH)

# **Survey Summary**

Charts Affected: 14926\_1, 14926\_18, 14926\_31, 14927\_1, 14905\_1, 14901\_1, 14500\_1

#### **Remarks:**

AWOIS 13017 was not investigated because it is located in water that is too shallow for SSS.

# **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChicagoAwois	AWOIS # 13017	0.00	000.0	Primary

# **Hydrographer Recommendations**

Hydrographer recommends investigating at a later date.

## S-57 Data

- Geo object 1: Wreck (WRECKS)
- Attributes: CATWRK 2:dangerous wreck QUASOU - 2:depth unknown SORDAT - 20061020 SORIND - US,US,nsurf,F00502 VERDAT - 12:Mean lower low water WATLEV - 3:always under water/submerged

# **Office Notes**

Retain wreck as charted.

# 1.2) AWOIS #13018 - AWOIS #13018- OBSTRUCTION

# No Primary Survey Feature for this AWOIS Item

 Search Position:
 42° 03' 16.1" N, 087° 40' 07.1" W

 Historical Depth:
 [None]

 Search Radius:
 150

Search Technique: S2, MD, ES, DI

Technique Notes: [None]

#### **History Notes:**

L886/90-- 1/24/90; NORTHWESTERN UNIVERSITY INSTALLED A 66 INCH DEEP-WATER INTAKE PIPE EXTENDING 3,500 FEET FROM THE LAGOON INTO LAKE MICHIGAN. 2400 FEET OF THE PIPE WILL BE LOCATED IN LAKE MICHIGAN LAKEBED. AT THE END OF THE PIPE IS A SUBMERGED CRIB WITH POSITION APPROXIMATE. (ENTERED 3/05 CEH)

# **Survey Summary**

Charts Affected: 14926\_1, 14926\_31, 14927\_1, 14905\_1, 14901\_1, 14500\_1

#### **Remarks:**

AWOIS 13018 was not investigated because it is located in water that is too shallow for SSS.

# **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChicagoAwois	AWOIS # 13018	0.00	000.0	Primary

# Hydrographer Recommendations

Hydrographer recommends investigating item at a later date.

# S-57 Data

Geo object 1: Obstruction (OBSTRN) Attributes: QUASOU - 2:depth unknown SORDAT - 20061020 SORIND - US,US,nsurf,F00502 VERDAT - 12:Mean lower low water WATLEV - 3:always under water/submerged

# **Office Notes**

Retain obstruction as charted.

# 1.3) AWOIS #1938 - AWOIS #1938- OBSTRUCTION

# No Primary Survey Feature for this AWOIS Item

Search Position:41° 38' 56.9" N, 087° 08' 45.4" WHistorical Depth:[None]Search Radius:50Search Technique:S2,ESTechnique Notes:[None]

#### **History Notes:**

LNM30/77--SUBMERGED PIPE IS IN APPROXIMATE POSITION 100 TO 150 FT NORTH OF BURNS HARBOR NORTH LIGHT 2, PIPE IS REPORTED TO BE 18 INCHES BELOW THE SURFACE. CES 14926--OPR-Y411-HSB-80, ITEM 4; INVESTIGATED ON MAY 27, 1980, DRAGGING OF THE AREA WAS IMPRACTICAL DUE TO PROXIMITY TO RIP-RAP BREAKWATER; A VISUAL SEARCH WAS MADE AND RECON HYDRO WAS RUN AT 20M SPACING, BUT WAS NOT ADEQUATE FOR RESOLUTION OF THE ITEM; VARIOUS PEOPLE CONTACTED COULD ALSO OFFER NO INFORMATION ON THE PIPE. POSITION DETERMINED BY RANGE (DEL NORTE)/AZIMUTH (T-1), IT IS RECOMMENDED TO RETAIN PIPE PA IN THE LOCATION REPORTED IN LNM 30/77. DISCREPANCY-- THE PIPE PA IS CHARTED AS A VISIBLE PIPE, NOT A SUBMERGED PIPE AS DESCRIBED ABOVE.

# **Survey Summary**

Charts Affected: 14905\_4, 14926\_15, 14926\_32, 14905\_1, 14901\_1, 14500\_1

#### **Remarks:**

AWOIS 1938 was not investigated due to its proximity to the breakwater.

# **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChicagoAwois	AWOIS # 1938	0.00	000.0	Primary

# **Hydrographer Recommendations**

Hydrographer recommends investigating at a later date.

# S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: QUASOU - 2:depth unknown

SORDAT - 20061020 SORIND - US,US,nsurf,F00502 VERDAT - 12:Mean lower low water WATLEV - 3:always under water/submerged

# **Office Notes**

Retain obstruction as charted.

# 1.4) AWOIS #2011 - AWOIS #2011- UNKNOWN WRECK

# No Primary Survey Feature for this AWOIS Item

Search Position:42° 02' 00.7" N, 087° 39' 52.4" WHistorical Depth:[None]Search Radius:150Search Technique:S2,MB,ES,D1,SD

[None]

#### **History Notes:**

**Technique Notes:** 

------FIRST CHARTED IN 1968, SOURCE UNKNOWN ■CES 14926--OPR-Y411-HSB-80, ITEM 1; DIVERS FOUND SCATTERED WRECKAGE AND 10 FT ■ LD IN 15 FT. OF 80 FT. L SECTION OF WOOD AND METAL; 40 METERS WEST A 50 FT. ■ L WOOD HULL SECTION W/WINDLASS AND ANCHOR CHAIN AND 13 FT. LD IN 18 FT. ■ POS. DETERMINED BY R/AZ.

## **Survey Summary**

Charts Affected: 14926\_2, 14926\_31, 14927\_1, 14905\_1, 14901\_1, 14500\_1

#### **Remarks:**

AWOIS 2011 was not investigated because it is located in water that is too shallow for SSS.

# **Feature Correlation**

Address	Feature	Range	Azimuth	Status	
ChicagoAwois	AWOIS # 2011	0.00	000.0	Primary	

# Hydrographer Recommendations

Hydrographer recommends investigating at a later date.

## S-57 Data

Geo object 1: Wreck (WRECKS) Attributes: CATWRK - 2:dangerous wreck QUASOU - 2:depth unknown SORDAT - 20061020 SORIND - US,US,nsurf,F00502 VERDAT - 12:Mean lower low water WATLEV - 3:always under water/submerged

# **Office Notes**

Retain wreck as charted.

# 1.5) AWOIS #2732 - LOUISVILLE AWOIS #2732

### No Primary Survey Feature for this AWOIS Item

Search Position:41° 46' 54.1" N, 087° 19' 30.1" WHistorical Depth:[None]Search Radius:350Search Technique:S2,MB,ES,SD

Technique Notes: [None]

#### **History Notes:**

CES14926--OPR-Y411-HSB-80; ITEM D. HYDROGRAPHER REPORTED 3 SOURCES OF INFO ON ■ THE WRECK. DIVING INSTRUCTOR PAUL ZILZ DESCRIBES AS 140 FT L STEAMER IN ABOUT■ 60 FT OF WATER 20 FT OFF BOTTOM. MICHIGAN CITY SCUBA CENTER SAYS A POPULAR ■ DIVE. PAUL ACKERMAN

### **Survey Summary**

**Charts Affected:** 14927\_1, 14905\_1, 14901\_1, 14500\_1

#### **Remarks:**

The entire search radius of AWOIS 2732 was surveyed using 200% SSS and SB echosounder. No contacts were seen on either 100% or 200% SSS records. Hydrographer believes that this wreck does not exist as charted.

# **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChicagoAwois	AWOIS # 2732	0.00	000.0	Primary

# **Hydrographer Recommendations**

Hydrographer recommends removing the currently charted wreck, as per current survey findings.

### S-57 Data

[None]

Concur. Remove charted wreck and remove PA text.

# 1.6) AWOIS #8860 - AWOIS #8860- OBSTRUCTION

### No Primary Survey Feature for this AWOIS Item

**Search Position:** 41° 37' 58.0" N, 087° 11' 42.7" W

[None]

Historical Depth: [None]

Search Radius: 50

Search Technique: S2,MB,ES

#### **History Notes:**

**Technique Notes:** 

D113/92--S-Y939; OBSTRUCTION (4.2M(14FT)LWD) ECHOSOUNDER DEPTH, iPOSITION GIVEN IN LAT 41-37-57.98N, LONG 87-11-42.67W. (ENTERED 2/94 RWD)

#### **Survey Summary**

Charts Affected: 14926\_32, 14905\_1, 14901\_1, 14500\_1

#### **Remarks:**

AWOIS 8860 was not investigated because it is located in water that is too shallow for SSS.

# **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChicagoAwois	AWOIS # 8860	0.00	000.0	Primary

# **Hydrographer Recommendations**

Hydrographer recommends investigating at a later date.

### S-57 Data

Geo object 1: Obstruction (OBSTRN) Attributes: QUASOU - 2:depth unknown SORDAT - 20061020 SORIND - US,US,nsurf,F00502 VERDAT - 12:Mean lower low water WATLEV - 3:always under water/submerged

Retain obstruction as charted.

# 1.7) AWOIS #8861 - OBSTRUCTION AWOIS #8861

### No Primary Survey Feature for this AWOIS Item

**Search Position:** 41° 39' 26.4" N, 087° 08' 02.1" W

Historical Depth: [None]

Search Radius: 50

Search Technique: S2,MB,ES

Technique Notes: [None]

#### **History Notes:**

HISTORY■ D113/92--S-Y939; OBSTRUCTION (13M AT LWD) ECHOSOUNDER DEPTH, POSITION GIVEN IN LAT 41-39-26.40N, LONG 87-08-02.14W. (ENTERED 2/94 RWD)

### **Survey Summary**

Charts Affected: 14905\_4, 14926\_15, 14926\_32, 14905\_1, 14901\_1, 14500\_1

#### **Remarks:**

The entire search radius of this charted submerged obstruction (AWOIS 8861) was surveyed using 200% SSS and SB Echosounder. This charted obstruction was not seen on either the 100% or 200% SSS records. Additional SB lines were collected around this AWOIS item to further look for shoaling. No evidence of this obstruction was found. Hydrographer concludes that this obstruction does not exist as charted.

# **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChicagoAwois	AWOIS # 8861	0.00	000.0	Primary

# **Hydrographer Recommendations**

Hydrographer recommends removing AWOIS 8861 from chart, as per current survey findings.

### S-57 Data

[None]

concur. Remove AWOIS 8861 from chart.

# 1.8) AWOIS #13022 - AWOIS #13022- GEO. MORLEY

### No Primary Survey Feature for this AWOIS Item

Search Position:	42° 02' 38.5" N, 087° 40' 05.6" W
Historical Depth:	[None]
Search Radius:	200
Search Technique:	S2,MB,ES,SD, DI
<b>Technique Notes:</b>	[None]

#### **History Notes:**

L1644/80-- JULY 1980; LOCAL KNOWLEDGE AND A SHIPWRECK CHART OF LAKE MICHIGAN INFORMED FIELD PARTY OF THE WRECKS EXISTENCE. GEO. MORLEY, A 192 FT CARGO VESSEL WHICH BURNED AND EXPLODED IN 1897. UPON INVESTIGATION OF THE AREA, A BUOY WAS FOUND MARKING THE STERN END OF THE WRECK, WHICH WAS ALSO WAS THE POINT OF LEAST DEPTH OF 4 FT. THE WRECK EXTENDS NORTHWARD FROM POSITION 405 APPROX 60 M, CONFIRMED BY RECON INVESTIGATION OF THE AREA USING THE FATHOMETER. (ENTERED 3/05 CEH)

### **Survey Summary**

Charts Affected: 14926\_2, 14926\_31, 14927\_1, 14905\_1, 14901\_1, 14500\_1

#### **Remarks:**

AWOIS 13022 was not investigated because it is located in water that is too shallow for SSS.

# **Feature Correlation**

Address	Feature	Range	Azimuth	Status	
ChicagoAwois	AWOIS # 13022	0.00	000.0	Primary	

### **Hydrographer Recommendations**

Hydrographer recommends investigating item at a later date.

### S-57 Data

Geo object 1: Wreck (WRECKS)

Attributes: CATWRK - 2:dangerous wreck

QUASOU - 2:depth unknown

SORDAT - 20061020

SORIND - US,US,nsurf,F00502 VERDAT - 12:Mean lower low water WATLEV - 3:always under water/submerged

# **Office Notes**

Retain wreck as charted.

# **1.9)** AWOIS #13025 - AWOIS 13025-UNKNOWN

### No Primary Survey Feature for this AWOIS Item

**Search Position:** 41° 58' 45.0" N, 087° 38' 12.0" W

Historical Depth: [None]

Search Radius: 250

Search Technique: S2, MB, ES,DI Technique Notes: [None]

History Notes:

LNM 14/85-- A 12 FT POWERBOAT REPORTEDLY SUNK IN POSTION LAT. 41/58/45N, LONG. 87/38/12W. WRECK IS IN 20 FT OF WATER AND MARKED BY A FLOATING SMALL WHITE BOAT FENDER. (ENTERED 3/05 CEH)

### **Survey Summary**

Charts Affected: 14926\_3, 14926\_31, 14927\_1, 14905\_1, 14901\_1, 14500\_1

#### **Remarks:**

The entire search radius of AWOIS 13025 was surveyed using 200% SSS and SB echosounder. No contacts were seen on either the 100% or 200% SSS records. Hydrographer believes this submerged wreck does not exist as charted.

### **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChicagoAwois	AWOIS # 13025	0.00	000.0	Primary

# **Hydrographer Recommendations**

Hydrographer recommends removing this charted submerged wreck (AWOIS 13025).

### S-57 Data

[None]

Concur. Remove charted submerged wreck (AWOIS 13025).

# 1.10) AWOIS #13026 - AWOIS 13026 - UNKNOWN

# No Primary Survey Feature for this AWOIS Item

Search Position:41° 58' 50.4" N, 087° 37' 52.5" WHistorical Depth:[None]Search Radius:250Search Technique:S2,MB,ES,DI

Technique Notes: [None]

#### **History Notes:**

LNM 23/93-- A 19 FT BAYLINER PLEASURE CRAFT IS SUBMERGED IN APPROXIMATE POSITION LAT. 41/58/50.4N, LONG. 87/37/52.5W. THE SUBMERGED VESSEL IS MARKED BY AN ORANGE BUOY. (ENTERED 3/05 CEH)

### **Survey Summary**

**Charts Affected:** 14926\_31, 14927\_1, 14905\_1, 14901\_1, 14500\_1

#### **Remarks:**

The entire search radius of AWOIS 13026 was surveyed using 200% SSS and SB echosounder. No contacts were seen on either the 100% or 200% SSS records. Hydrographer believes this submerged wreck does not exist as charted.

# **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChicagoAwois	AWOIS # 13026	0.00	000.0	Primary

# **Hydrographer Recommendations**

Hydrographer recommends removing this charted submerged wreck (AWOIS 13026).

### S-57 Data

[None]

Concur. Remove charted submerged wreck (AWOIS 13026) and PA text.

# 1.11) AWOIS #13031 - AWOIS 13031 - UNKNOWN

### No Primary Survey Feature for this AWOIS Item

**Search Position:** 41° 51′ 06.3″ N, 087° 33′ 28.8″ W

Historical Depth: [None]

Search Radius: 300

Search Technique: S2, MB, ES

Technique Notes: [None]

#### **History Notes:**

\*\*\*\*UNKNOWN SOURCE-- THE SOURCE COULD NOT BE FOUND THAT PUT THE SUBMERGED WRECK WITH POSITION APPROXIMATE ON THE CHART 14905. THE WRECK FIRST SHOWED UP ON THE 23RD EDITION OF CHART 14905, 8/13/83. (ENTERED 3/05 CEH)

### **Survey Summary**

**Charts Affected:** 14926\_31, 14927\_1, 14905\_1, 14901\_1, 14500\_1

#### **Remarks:**

The entire search radius of AWOIS 13031 was surveyed using 200% SSS and Singlebeam Echosounder. Several contacts were selected inside the search radius. But none are thought to be the charted submerged wreck since none of the contacts resemble a wreck. There is a temporary buoy at the location of this charted wreck. But no wreck was seen on either the 100% or 200% SSS records. Hydrographer attempted to contact charter boat captains for information about this wreck, but was unsuccessful.

# **Feature Correlation**

Address	Feature	Range	Azimuth	Status	
ChicagoAwois	AWOIS # 13031	0.00	000.0	Primary	

# **Hydrographer Recommendations**

Hydrographer recommends taking no action and leaving wreck as charted.

# S-57 Data

[None]

Do not concur. Remove charted submerged wreck and PA text from chart 14905\_1 as it is shown in remaining charts.

# 1.12) AWOIS #13032 - AWOIS #13032- UNKNOWN

## No Primary Survey Feature for this AWOIS Item

Historical Depth: [None]

Search Radius: 200

Search Technique: S2,MB,ES Technique Notes: [None]

**History Notes:** 

LNM 30/90-- ADD DANGEROUS WRECK (PA). (ENTERED 3/05 CEH)

# **Survey Summary**

Charts Affected: 14926\_8, 14928\_1, 14926\_31, 14927\_1, 14905\_1, 14901\_1, 14500\_1

#### **Remarks:**

AWOIS 13032 was not investigated because it is located in water that is too shallow for SSS.

# **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChicagoAwois	AWOIS # 13032	0.00	000.0	Primary

# **Hydrographer Recommendations**

Hydrographer recommends investigating at a later date.

### S-57 Data

- Geo object 1: Wreck (WRECKS)
- Attributes: CATWRK 2:dangerous wreck

QUASOU - 2:depth unknown

SORDAT - 20061020

SORIND - US,US,nsurf,F00502

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Retain wreck as charted.

# 1.13) AWOIS #13039 - AWOIS #13039- UNKNOWN

### No Primary Survey Feature for this AWOIS Item

**Search Position:** 41° 41′ 56.0″ N, 087° 30′ 40.0″ W

Historical Depth: [None]

Search Radius: 150

Search Technique: S2,MB,ES

Technique Notes: [None]

#### **History Notes:**

L1633/84-- A SUBMERGED WRECK LOCATED BY LORAN C AT 33446.7/ 50230.2. MCD CONVERTED THE LORAN C TO LAT/LONG TO LAT. 41/41/56N, LONG. 87/30/40W. THE LENGTH OF KEEL IS 400 FT. THE BOILER IS 8 ' FROM SURFACE AND THE WRECK IS IN 15 FT OF WATER FACING SOUTH. (ENTERED 4/05 CEH)

### **Survey Summary**

Charts Affected: 14929\_1, 14926\_11, 14926\_31, 14927\_1, 14905\_1, 14901\_1, 14500\_1

#### **Remarks:**

AWOIS 13039 was not investigated due to weather and time constraints.

# **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChicagoAwois	AWOIS # 13039	0.00	000.0	Primary

# Hydrographer Recommendations

Hydrographer recommends investigating at a later date.

### S-57 Data

Geo object 1: Wreck (WRECKS) Attributes: CATWRK - 2:dangerous wreck QUASOU - 2:depth unknown SORDAT - 20061020 SORIND - US,US,nsurf,F00502 VERDAT - 12:Mean lower low water WATLEV - 3:always under water/submerged

# **Office Notes**

Retain wreck as charted.

# 1.14) AWOIS #13040 - AWOIS #13040- OBSTRUCTION

### No Primary Survey Feature for this AWOIS Item

**Search Position:** 41° 42' 03.0" N, 087° 30' 26.7" W

Historical Depth: [None]

Search Radius: 100

Search Technique: S2, MB,ES

Technique Notes: [None]

#### **History Notes:**

\*\*\*\*SOURCE UNKNOWN-- SUBMERGED INTAKE CRIBS WAS APPLIED BEFORE 1972 TO THE LAKE SURVEY CHART BEFORE NOS TOOK OVER THE CHART.■ L1830/76-- ADDED "DEPTH OVER CRIBS 13 FT" TO SUBMERGED INTAKE CRIBS AT LAT. 41/42/03.03N, LONG. 87/30/26.71W. (ENTERED 4/05 CEH)

### **Survey Summary**

Charts Affected: 14929\_1, 14926\_11, 14926\_31, 14927\_1, 14905\_1, 14901\_1, 14500\_1

#### **Remarks:**

AWOIS 13040 was not investigated due to weather and time constraints.

# **Feature Correlation**

Address	Feature	Range	Azimuth	Status	
ChicagoAwois	AWOIS # 13040	0.00	000.0	Primary	

# **Hydrographer Recommendations**

Hydrographer recommends investigating at a later date.

### S-57 Data

- **Geo object 1:** Obstruction (OBSTRN)
- Attributes: QUASOU 2:depth unknown SORDAT - 20061020 SORIND - US,US,nsurf,F00502 VERDAT - 12:Mean lower low water WATLEV - 3:always under water/submerged

Retain obstruction as charted.

# 1.15) AWOIS #13041 - AWOIS #13041- OBSTRUCTION

### **No Primary Survey Feature for this AWOIS Item**

**Search Position:** 41° 41′ 58.9″ N, 087° 30′ 19.7″ W

Historical Depth: [None]

Search Radius: 100

Search Technique: S2, MB,ES

Technique Notes: [None]

#### **History Notes:**

\*\*\*\*SOURCE UNKNOWN-- CRIB WAS APPLIED BEFORE 1972 TO THE LAKE SURVEY CHART BEFORE NOS TOOK OVER THE CHART.■ L1830/76-- ADDED "DEPTH OVER CRIB 15 FT" TO SUBMERGED CRIB AT LAT. 41/41/58.9N, LONG. 87/30/19.67W. (ENTERED 4/05 CEH)

### **Survey Summary**

Charts Affected: 14929\_1, 14926\_11, 14926\_12, 14926\_31, 14927\_1, 14905\_1, 14901\_1, 14500\_1

#### **Remarks:**

AWOIS 13041 was not investigated due to weather and time constraints.

# **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChicagoAwois	AWOIS # 13041	0.00	000.0	Primary

# **Hydrographer Recommendations**

Hydrographer recommends investigating at a later date.

### S-57 Data

- **Geo object 1:** Obstruction (OBSTRN)
- Attributes:QUASOU 2:depth unknownSORDAT 20061020SORIND US,US,nsurf,F00502VERDAT 12:Mean lower low waterWATLEV 3:always under water/submerged

Retain obstruction as charted.

# 1.16) AWOIS #13042 - AWOIS #13042- OBSTRUCTION

### No Primary Survey Feature for this AWOIS Item

**Search Position:** 41° 41′ 56.4″ N, 087° 29′ 58.6″ W

Historical Depth: [None]

Search Radius: 100

Search Technique: S2, MB, ES

Technique Notes: [None]

#### **History Notes:**

\*\*\*\*SOURCE UNKNOWN-- SUBMERGED CRIB WITH DEPTH OVER CRIB 16 FEET IN POSITION OF LAT. 41/41/56.4N, LONG. 87/29/58.6W WAS APPLIED BEFORE 1972 TO THE LAKE SURVEY CHART BEFORE NOS TOOK OVER THE CHART. (ENTERED 4/05 CEH)

#### **Survey Summary**

Charts Affected: 14929\_1, 14926\_11, 14926\_12, 14926\_31, 14926\_32, 14927\_1, 14905\_1, 14901\_1, 14500\_1

#### **Remarks:**

AWOIS 13042 was not investigated due to weather and time constraints.

# **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChicagoAwois	AWOIS # 13042	0.00	000.0	Primary

# Hydrographer Recommendations

Hydrographer recommends investigating at a later date.

### S-57 Data

Geo object 1: Obstruction (OBSTRN) Attributes: QUASOU - 2:depth unknown SORDAT - 20061020 SORIND - US,US,nsurf,F00502 VERDAT - 12:Mean lower low water WATLEV - 3:always under water/submerged

Retain obstruction as charted.

# 1.17) AWOIS #13043 - AWOIS #13043- OBSTRUCTION

### No Primary Survey Feature for this AWOIS Item

**Search Position:** 41° 41′ 48.5″ N, 087° 30′ 08.3″ W

[None]

Historical Depth: [None]

Search Radius: 100

Search Technique: S2,MB,ES

History Notes:

**Technique Notes:** 

\*\*\*\*SOURCE UNKNOWN-- THE THREE SUBMERGED CRIBS AT LAT. 41/41/49.01N, LONG. 87/30/09.23W, LAT. 41/41/47.7N, LONG. 87/30/07.38W AND LAT. 41/41/49.2N, LONG. 87/30/08.12W WAS APPLIED BEFORE 1972 TO THE LAKE SURVEY CHART BEFORE NOS TOOK OVER THE CHART. (ENTERED 4/05 CEH)

# **Survey Summary**

Charts Affected: 14929\_1, 14926\_11, 14926\_12, 14926\_31, 14927\_1, 14905\_1, 14901\_1, 14500\_1

#### **Remarks:**

AWOIS 13043 was not investigated due to weather and time constraints.

# **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChicagoAwois	AWOIS # 13043	0.00	000.0	Primary

# Hydrographer Recommendations

Hydrographer recommends investigating at a later date.

### S-57 Data

Geo object 1: Obstruction (OBSTRN) Attributes: QUASOU - 2:depth unknown SORDAT - 20061020 SORIND - US,US,nsurf,F00502 VERDAT - 12:Mean lower low water WATLEV - 3:always under water/submerged

Retain obstruction as charted.

# 1.18) AWOIS #13044 - AWOIS #13044- OBSTRUCTION

### No Primary Survey Feature for this AWOIS Item

**Search Position:** 41° 40' 50.8" N, 087° 28' 24.3" W

Historical Depth: [None]

Search Radius: 100

Search Technique: S2, MB, ES

Technique Notes: [None]

#### **History Notes:**

\*\*\*\*SOURCE UNKNOWN-- THE THREE PWI SUBMERGED CRIBS AT LAT. 41/40/52.01N, LONG. 87/28/24.66W WITH A DEPTH OVER CRIB 14 FEET, LAT. 41/40/49.7N, LONG. 87/28/25.09W AND LAT. 41/40/50.2N, LONG. 87/28/22.47W WITH DEPTH OVER CRIB 12 FEET WAS APPLIED BEFORE 1972 TO THE LAKE SURVEY CHART BEFORE NOS TOOK OVER THE CHART. (ENTERED 4/05 CEH)

### **Survey Summary**

Charts Affected: 14929\_1, 14926\_12, 14926\_31, 14926\_32, 14927\_1, 14905\_1, 14901\_1, 14500\_1

#### **Remarks:**

AWOIS 13044 was not investigated due to weather and time constraints.

# **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChicagoAwois	AWOIS # 13044	0.00	000.0	Primary

# Hydrographer Recommendations

Hydrographer recommends investigating at a later date.

### S-57 Data

Geo object 1: Obstruction (OBSTRN) Attributes: QUASOU - 2:depth unknown SORDAT - 20061020 SORIND - US,US,nsurf,F00502 VERDAT - 12:Mean lower low water WATLEV - 3:always under water/submerged

Retain obstruction as charted.

# 1.19) AWOIS #13046 - AWOIS 13046 - UNKNOWN

### No Primary Survey Feature for this AWOIS Item

**Search Position:** 41° 38' 46.2" N, 087° 25' 44.3" W

Historical Depth: [None]

Search Radius: 75

Search Technique: VS, SD

Technique Notes: [None]

#### **History Notes:**

UNKNOWN SOURCE-- THE SUBMERGED WRECK WAS APPLIED BEFORE 1972 TO THE LAKE SURVEY CHART BEFORE NOS TOOK OVER THE CHART AS A SUBMERGED NONDANGEROUS WRECK. ON NOS CHART 14929, 19TH ED. JUNE 16/90, THE WRECK WAS REVISED TO A SUBMERGED DANGEROUS WRECK. (ENTERED 4/05 CEH)

### **Survey Summary**

Charts Affected: 14926\_13, 14929\_1, 14926\_32, 14927\_1, 14905\_1, 14901\_1, 14500\_1

#### **Remarks:**

This charted wreck (AWOIS 13046) is located in water that is too shallow for SSS or obtaining a DP. The wreck is visibly awash at the charted position.

# **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChicagoAwois	AWOIS # 13046	0.00	000.0	Primary

# **Hydrographer Recommendations**

Hydrographer recommends retaining wreck as charted.

### S-57 Data

Geo object 1: Wreck (WRECKS)

Attributes: CATWRK - 2:dangerous wreck QUASOU - 2:depth unknown SORDAT - 20061020 SORIND - US,US,nsurf,F00502 WATLEV - 5:awash

# **Office Notes**

Concur with clarification. Update charted submerged wreck (AWOIS 13046) to a visible wreck.

# 1.20) AWOIS #13047 - AWOIS 13047 - UNKNOWN

### No Primary Survey Feature for this AWOIS Item

**Search Position:** 41° 38' 43.3" N, 087° 25' 38.8" W

Historical Depth: [None]

Search Radius: 75

Search Technique: VS, SD

Technique Notes: [None]

#### **History Notes:**

UNKNOWN SOURCE-- THE SUBMERGED WRECK WAS APPLIED BEFORE 1972 TO THE LAKE SURVEY CHART BEFORE NOS TOOK OVER THE CHART AS A SUBMERGED NONDANGEROUS WRECK. ON NOS CHART 14929, 19TH ED. JUNE 16/90, THE WRECK WAS REVISED TO A SUBMERGED DANGEROUS WRECK. (ENTERED 4/05 CEH)

### **Survey Summary**

Charts Affected: 14926\_13, 14929\_1, 14926\_32, 14927\_1, 14905\_1, 14901\_1, 14500\_1

#### **Remarks:**

This charted wreck (AWOIS 13047) is located in water that is too shallow for SSS or obtaining a DP. The wreck is visibly awash at the charted position.

# **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChicagoAwois	AWOIS # 13047	0.00	000.0	Primary

# **Hydrographer Recommendations**

Hydrographer recommends retaining wreck as charted.

### S-57 Data

Geo object 1: Wreck (WRECKS)

Attributes: CATWRK - 2:dangerous wreck QUASOU - 2:depth unknown SORDAT - 20061020 SORIND - US,US,nsurf,F00502 WATLEV - 5:awash

# **Office Notes**

Concur with clarification. Update charted submerged wreck (AWOIS 13047) to a visible wreck.

# 1.21) AWOIS #13049 - AWOIS 13049 - OBSTRUCTION

# No Primary Survey Feature for this AWOIS Item

**Search Position:** 41° 38' 22.7" N, 087° 22' 16.6" W

Historical Depth: [None]

Search Radius: 200

Search Technique: S2,MB,ES

Technique Notes: [None]

#### **History Notes:**

UNKNOWN SOURCE-- DEPTH OVER CRIB 28 FT WAS APPLIED BEFORE 1972 TO THE LAKE SURVEY CHART BEFORE NOS TOOK OVER THE CHART. (ENTERED 4/05 CEH)

### **Survey Summary**

Charts Affected: 14926\_13, 14926\_14, 14926\_32, 14927\_1, 14905\_1, 14901\_1, 14500\_1

#### **Remarks:**

The charted crib (AWOIS 13049) was seen on both 100% and 200% SSS records, as were other objects nearby that are thought to be associated with the crib. However, the hydrographers were unable to obtain a least depth on the crib or the other contacts because a dive team was at this location at the time of the survey.

Address	Feature	Range	Azimuth	Status
ChicagoAwois	AWOIS # 13049	0.00	000.0	Primary
f00502/3001sss500k/2006-270/ch060927092900	0001	55.69	307.9	Secondary
f00502/3001sss500k/2006-270/ch060927093400	0003	62.75	314.3	Secondary
f00502/3001sss500k/2006-270/ch060927094200	0003	67.31	304.3	Secondary
f00502/3001sss500k/2006-270/ch060927094200	0002	126.06	310.7	Secondary
f00502/3001sss500k/2006-270/ch060927093400	0001	132.03	314.9	Secondary
f00502/3001sss500k/2006-270/ch060927093700	0001	145.94	311.6	Secondary
f00502/3001sss500k/2006-270/ch060927093400	0002	166.62	290.9	Secondary
f00502/3001sss500k/2006-270/ch060927094200	0001	169.11	287.8	Secondary
f00502/3001sss500k/2006-270/ch060927093700	0002	182.96	315.3	Secondary

# **Feature Correlation**

# **Hydrographer Recommendations**

Hydrographer recommends investigating at a later date to obtain a current least depth.

## S-57 Data

**Geo object 1:** Obstruction (OBSTRN)

Attributes: CATOBS - 4:crib

QUASOU - 2:depth unknown SORDAT - 20061020 SORIND - US,US,nsurf,F00502 TECSOU - 2:found by side scan sonar WATLEV - 3:always under water/submerged

# **Office Notes**

Retain crib position as charted.

# **1.22) AWOIS #13051 - AWOIS 13051 - OBSTRUCTION**

### No Primary Survey Feature for this AWOIS Item

**Search Position:** 41° 37' 58.8" N, 087° 20' 38.6" W

Historical Depth: [None]

Search Radius: 200

Search Technique: S2, MB, ES

Technique Notes: [None]

#### **History Notes:**

UNKNOWN SOURCE-- SUBMERGED PILE WAS APPLIED BEFORE 1972 TO THE LAKE SURVEY CHART BEFORE NOS TOOK OVER THE CHART. (ENTERED 4/05 CEH)

#### **Survey Summary**

Charts Affected: 14926\_14, 14926\_32, 14927\_1, 14905\_1, 14901\_1, 14500\_1

#### **Remarks:**

The entire search radius of AWOIS 13051 was surveyed using 200% SSS and SB echosounder. No contacts were seen on either 100% or 200% SSS records. Since it is difficult to detect piles on SSS, Hydrographer cannot determine existance of this submerged pile.

# **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChicagoAwois	AWOIS # 13051	0.00	000.0	Primary

# Hydrographer Recommendations

Hydrographer recommends retaining submerged pile as charted and investigating at a later date.

### S-57 Data

Geo object 1: Pile (PILPNT) Attributes: INFORM - SSS could not disprove its existence SORDAT - 20061020 SORIND - US,US,nsurf,F00502

# **Office Notes**

Concur. Retain submerged pile as charted.

# 1.23) AWOIS #13053 - AWOIS 13053 - JOHN A

## No Primary Survey Feature for this AWOIS Item

Search Position:41° 38' 30.0" N, 087° 20' 30.0" WHistorical Depth:[None]Search Radius:250Search Technique:VS,SD,S2,MB,ESTechnique Notes:[None]

#### **History Notes:**

L576/93-- 10/21/1991; A VISIBLE WRECK WITH AN APPROXIMATE POSITION WAS ADDED THROUGH L576. A WORK BARGE OR DIVING VESSEL NAMED JOHN A IS IN A SEMI-SUNK CONDITION OFFSHORE IN LAKE MICHIGAN. IT IS HELD IN PLACE AND SUPPORTED AT THIS SPECIFIC LOCATION BY 3 STEEL PILINGS THAT WERE DRIVEN INTO THE LAKE BOTTOM. ■ LNM 7/93-- ADD VISIBLE WRECK (PA) AT LAT. 41/38/30N, LONG. 087/20/30W. (ENTERED 4/05 CEH)

## **Survey Summary**

Charts Affected: 14926\_14, 14926\_32, 14927\_1, 14905\_1, 14901\_1, 14500\_1

#### **Remarks:**

A visual investigation was done within the entire search radius of the charted visible wreck (AWOIS 13053) and no visible obstructions or wrecks were seen. The entire search radius of the charted visible wreck (AWOIS 13053) was then surveyed using 200% SSS and SB Echosounder. No contacts resembling a wreck were seen on either record. The hydrographer believes that this wreck does not exist as charted.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChicagoAwois	AWOIS # 13053	0.00	000.0	Primary

# **Hydrographer Recommendations**

Hydrographer recommends removing this charted wreck since it was unable to be located and there is a submerged crib already charted right next to it that mariners should avoid.

## S-57 Data

[None]

# **Office Notes**

Concur. Remove charted wreck.

# 1.24) AWOIS # 13035 - Wreck- 0001

## **Primary Feature for AWOIS Item #13035**

Search Position:	41° 44' 51.0" N, 087° 31' 39.8" W
Historical Depth:	[None]
Search Radius:	150
Search Technique:	SW,MB,ES,DI
<b>Technique Notes:</b>	[None]

#### **History Notes:**

LNM 40/01-- A 23 FT P/C SUNK IN POSITION LAT. 41/44/51.28N, LONG. 87/31/40.04W APPROXIMATELY .5 NM OFFSHORE ALONG THE LAKE SIDE OF CALUMET BREAK WALL. (ENTERED 3/05 CEH)

### **Survey Summary**

Survey Position:	41° 44' 49.8" N, 087° 31' 43.8" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-264.08:22:52 (09/21/2006)
Survey Line:	f00502 / 3001sss500k / 2006-258 / ch060915075200
Contact/Point:	0001/1
Charts Affected:	14926_11, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

This contact was found inside the search radius of the charted submerged wreck (AWOIS 13035) using 200% SSS and SB echosounder. This contact was seen on a 100% SSS record but not on the 200% SSS record. This contact does not resemble a wreck on the SSS record. It looks more like a rock pile or shoal. SB investigation was not conducted on this object.

Address	Feature	Range	Azimuth	Status
f00502/3001sss500k/2006-258/ch060915075200	0001	0.00	000.0	Primary
ChicagoAwois	AWOIS # 13035	99.67	248.2	Secondary

Hydrographer recommends charting a shoal obstruction at this location and investigating the contact again at a later date.

## S-57 Data

Geo object 1: Wreck (WRECKS)

Attributes:	CATWRK - 2:dangerous wreck
	QUASOU - 6:least depth known
	SORDAT - 20061020
	SORIND - US,US,nsurf,F00502
	TECSOU - 1,2:found by echo-sounder,found by side scan sonar
	VERDAT - 12:Mean lower low water
	WATLEV - 3:always under water/submerged

# **Office Notes**

Do not concur. Update charted submerged wreck (AWOIS 13035) position. Remove PA text.

# 1.25) AWOIS 13029- 2785/1

## **Primary Feature for AWOIS Item #13029**

Search Position:41° 55' 56.9" N, 087° 33' 28.0" WHistorical Depth:[None]Search Radius:250Search Technique:S2,MB,ESTechnique Notes:[None]

#### **History Notes:**

L1633/84-- A 130 FT SCHOONER NAMED WING OF THE WIND, SANK AT POSTION IN LORAN C 33357.5/50064. MCD CONVERTED THE LORAN C TO LAT. 41/55/56.9N, LONG. 87/33/28. THE CARGO OF THE SCHOONER WAS COAL. BOW INTACT AT 45'. (ENTERED 3/05 CEH)

### **Survey Summary**

Survey Position:	41° 55' 58.3" N, 087° 33' 27.5" W
Least Depth:	12.58  m (= 41.26  ft = 6.877  fm = 6  fm 5.26  ft)
TPU (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-249.17:52:26.900 (09/06/2006)
Survey Line:	f00502 / 3001sb / 2006-249 / 033_1749
Profile/Beam:	2785/1
Charts Affected:	14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

This submerged wreck (AWOIS 13029) was seen on both 100% and 200% SSS records. SB investigation was conducted in a star pattern and the contact was seen on the echosounder trace. Echosounder data final zoning. The height of the contact is 0.93m and the least depth obtained was 41.26ft. The least depth obtained on the contact is not shoaler than the charted surrounding depth area.

Address	Feature	Range	Azimuth	Status
f00502/3001sb/2006-249/033_1749	2785/1	0.00	000.0	Primary
f00502/3001sss500k/2006-229/ch060817095600	0002	1.25	319.8	Secondary
f00502/3001sss500k/2006-229/ch060817101400	0001	7.36	120.8	Secondary
ChicagoAwois	AWOIS # 13029	43.65	014.8	Secondary

Hydrographer recommends revising location of charted wreck and removing the charted "PA". Hydrographer also recommends charting the least depth of this wreck.

# S-57 Data

[None]

# **Office Notes**

Concur. Update Wk position with LD 41ft, Remove "PA" text.

# 1.26) AWOIS 13023- 8090/1

## **Primary Feature for AWOIS Item #13023**

Search Position:	42° 02' 44.9" N, 087° 37' 04.9" W
Historical Depth:	[None]
Search Radius:	250
Search Technique:	S2, MB, ES, DI
<b>Technique Notes:</b>	[None]

#### **History Notes:**

L1124/95--9/28/95; A 201 FT SCHOONER, NAMED WELLS BURT, SANK AND WAS LOCATED AT LORAN C COORDINATES 33325.4/79977.7. MCD CONVERTED THE LORAN C COORDINATES TO LAT. 42/02/44.92N, LONG. 087/37/04.88W. (ENTERED 3/05 CEH)

### **Survey Summary**

Survey Position:	42° 02' 43.3" N, 087° 37' 05.1" W
Least Depth:	8.64 m (= 28.34 ft = 4.723 fm = 4 fm 4.34 ft)
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-249.16:46:59.000 (09/06/2006)
Survey Line:	f00502 / 3001sb / 2006-249 / 036_1638
Profile/Beam:	8090/1
Charts Affected:	14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

This submerged wreck (AWOIS 13023) was seen on both 100% and 200% SSS records. SB investigation was conducted in a star pattern and the contact was seen on the echosounder trace. Echosounder data was corrected to Low Water Datum using observed verified tides with final zoning. The height of the wreck is 1.85m and the least depth obtained was 28.34ft. The least depth obtained on the contact is not shoaler than the charted surrounding depth area.

Feature (	Correlation
-----------	-------------

Address	Feature	Range	Azimuth	Status
f00502/3001sb/2006-249/036_1638	8090/1	0.00	000.0	Primary
f00502/3001sss500k/2006-233/ch060821111900	0001	6.99	165.7	Secondary
f00502/3001sss500k/2006-233/ch060821112300	0002	19.53	014.7	Secondary
f00502/3001sss500k/2006-233/ch060821110100	0001	25.55	143.6	Secondary
f00502/3001sss500k/2006-233/ch060821112300	0001	31.02	142.4	Secondary

ChicagoAwois	AWOIS # 13023	49.48	186.0	Secondary (grouped)
f00502/3001sss500k/2006-233/ch060821112300	0003	59.01	144.1	Secondary (grouped)

Hydrographer recommends revising location of charted wreck and removing the charted "PA". Hydrographer also recommends charting the least depth of this wreck.

#### **Cartographically-Rounded Depth (Affected Charts):**

28ft (14926\_31, 14927\_1, 14905\_1) 4 ¾fm (14500\_1) 28ft (14901\_1)

### S-57 Data

Geo object 1: Wreck (WRECKS)

Attributes:CATWRK - 2:dangerous wreckQUASOU - 6:least depth knownSORDAT - 20061020SORIND - US,US,nsurf,F00502TECSOU - 1,2:found by echo-sounder,found by side scan sonarVALSOU - 8.638 mVERDAT - 12:Mean lower low waterWATLEV - 3:always under water/submerged

## **Office Notes**

concur. Update charted wreck position and remove PA text.

# 1.27) AWOIS 13019- 2889/1

## **Primary Feature for AWOIS Item #13019**

Search Position:42° 03' 49.2" N, 087° 39' 12.5" WHistorical Depth:[None]Search Radius:150Search Technique:S2, ES,MBTechnique Notes:[None]

#### **History Notes:**

L2041/77--2/28/74; EXTENDED THE EXISTING 48 INCH PIPELINE WHICH WAS 1800 FEET FROM SHORE, 3500 FEET TO FORM A PIPELINE EQUAL TO 5300 FEET BEARING N81° - 50 E. IN ADDITION, THE INTAKE CRIB WILL BE RELOCATED ON THE LAKEWARD END OF THE EXTENSION. THE INTAKE CRIB STRUCTURE IS 6 FEET BY 6 FEET AND 8 FEET HIGH. THE INTAKE CRIB HAS A DEPTH OF 24 FEET. PIPELINE WAS BACKFILLED WITH SAND AND CLAY AND COVERED WITH QUARRY STONE. (ENTERED 3/02 CEH)

### **Survey Summary**

Survey Position:	42° 03' 50.6" N, 087° 39' 14.8" W
Least Depth:	7.88 m (= 25.86 ft = 4.310 fm = 4 fm 1.86 ft)
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-233.19:14:04.110 (08/21/2006)
Survey Line:	f00502 / 3001sb / 2006-233 / 566_1911
Profile/Beam:	2889/1
Charts Affected:	14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

This charted submerged crib (AWOIS 13019) was seen on both 100% and 200% SSS records. SB investigation was conducted in a star pattern and the contact was seen on the echosounder trace. Echosounder data was corrected to Low Water Datum using observed verified tides with final zoning. The actual crib lies approximately 75m Northwest of its charted location. The crib has a height of 1.1m and the least depth obtained was 25.8ft.

Address	Feature	Range	Azimuth	Status
f00502/3001sb/2006-233/566_1911	2889/1	0.00	000.0	Primary
f00502/3001sss500k/2006-233/ch060821120900	0002	23.73	137.0	Secondary
f00502/3001sss500k/2006-233/ch060821115600	0003	24.00	142.8	Secondary

f00502/3001sss500k/2006-233/ch060821121500	0002	28.32	142.7	Secondary
ChicagoAwois	AWOIS # 13019	67.96	307.6	Secondary

Hydrographer recommends revising location of charted crib as per current survey findings. Consequently, the charted pipeline attached to this crib will also need modification. The pipeline will be addressed separately. Hydrographer also recommends charting the least depth of this crib.

#### **Cartographically-Rounded Depth (Affected Charts):**

26ft (14926\_31, 14927\_1, 14905\_1) 4 ¼fm (14500\_1) 26ft (14901\_1)

### S-57 Data

Geo object 1:	Obstruction (OBSTRN)
Attributes:	CATOBS - 4:crib
	QUASOU - 6:least depth known
	SORDAT - 20061020
	SORIND - US,US,nsurf,F00502
	TECSOU - 1,2:found by echo-sounder,found by side scan sonar
	VALSOU - 7.882 m
	VERDAT - 12:Mean lower low water
	WATLEV - 3:always under water/submerged

### **Office Notes**

Concur. Update crib position and chart least depth to 25 ft.

# 1.28) AWOIS 13020- 1002/1

## **Primary Feature for AWOIS Item #13020**

Search Position:42° 03' 56.8" N, 087° 39' 13.4" WHistorical Depth:[None]Search Radius:150Search Technique:S2, ES,MBTechnique Notes:[None]

#### **History Notes:**

L2041/77--2/28/74; ADDED A 48 OR 54 INCH PIPELINE WHICH EXTENDED LAKEWARD 5350 FEET BEARING ■N 77° - 51 E. AN INTAKE CRIB IS LOCATED ON THE LAKEWARD END OF THE PROPOSED PIPELINE. THE INTAKE CRIB HAS A DEPTH OF 24 FEET. THE STRUCTURE OF THE INTAKE CRIB IS 8 FEET HIGH AND 6 FT BY 6 FT. THE PIPELINE WAS BACKFILLED AND QUARRY STONE PLACE ON THE PIPELINE. (ENTERED 3/05 CEH)

### **Survey Summary**

Survey Position:	42° 03' 55.3" N, 087° 39' 15.4" W
Least Depth:	6.14 m (= 20.14 ft = 3.357 fm = 3 fm 2.14 ft)
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-249.15:11:32.100 (09/06/2006)
Survey Line:	f00502 / 3001sb / 2006-249 / 000_1510
Profile/Beam:	1002/1
Charts Affected:	14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

This charted submerged crib (AWOIS 13020) was seen on both 100% and 200% SSS records. SB investigation was conducted in a star pattern and the contact was seen on the echosounder trace. Echosounder data was corrected to Low Water Datum using observed verified tides with final zoning. The crib has a height of 1.66m and the least depth obtained was 20.14ft. The actual crib lies approximately 60m Southeast of its charted location.

Address	Feature	Range	Azimuth	Status
f00502/3001sb/2006-249/000_1510	1002/1	0.00	000.0	Primary
f00502/3001sss500k/2006-233/ch060821121500	0001	5.13	037.0	Secondary
f00502/3001sss500k/2006-233/ch060821120900	0003	6.99	082.5	Secondary
f00502/3001sss500k/2006-233/ch060821115600	0004	7.78	078.3	Secondary

ChicagoAwois	AWOIS # 13020	64.97	224.9	Secondary	
--------------	---------------	-------	-------	-----------	--

Hydrographer recommends revising location of charted crib as per current survey findings. Consequently, the charted pipeline attached to this crib will also need modification. The pipeline will be addressed separately. Hydrographer also recommends charting the least depth of this crib.

#### **Cartographically-Rounded Depth (Affected Charts):**

20ft (14926\_31, 14927\_1, 14905\_1) 3 ¼fm (14500\_1) 20ft (14901\_1)

## S-57 Data

Geo object 1:	Obstruction	(OBSTRN)
---------------	-------------	----------

Attributes:CATOBS - 4:cribQUASOU - 6:least depth knownSORDAT - 20061020SORIND - US,US,nsurf,F00502TECSOU - 1,2:found by echo-sounder,found by side scan sonarVALSOU - 6.139 mVERDAT - 12:Mean lower low waterWATLEV - 3:always under water/submerged

## **Office Notes**

Concur. Update crib position and chart least depth to 20 ft.

# 1.29) AWOIS 13021-8607/1

## **Primary Feature for AWOIS Item #13021**

Search Position:	42° 03' 41.2" N, 087° 39' 10.6" W
Historical Depth:	[None]
Search Radius:	150
Search Technique:	S2, ES,MB
<b>Technique Notes:</b>	[None]

#### **History Notes:**

\*\*\*\*SOURCE UNKNOWN-- PWI DEPTH OVER CRIB 16FT WAS APPLIED BEFORE 1972 TO THE LAKE SURVEY CHART BEFORE NOS TOOK OVER THE CHART. (ENTERED 3/05 CEH)

### **Survey Summary**

Survey Position:	42° 03' 46.9" N, 087° 39' 13.4" W
Least Depth:	6.33 m (= 20.75 ft = 3.459 fm = 3 fm 2.75 ft)
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-249.15:30:17.500 (09/06/2006)
Survey Line:	f00502 / 3001sb / 2006-249 / 000_1521
Profile/Beam:	8607/1
Charts Affected:	14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

This charted submerged crib (AWOIS 13021) was seen on both 100% and 200% SSS records. SB investigation was conducted in a star pattern and the contact was seen on the echosounder trace. Echosounder data was corrected to Low Water Datum using observed verified tides with final zoning. The height of the crib is 1.65m and the least depth obtained was 20.75ft. The actual crib lies approximately 190m Northwest of its charted location.

Address	Feature	Range	Azimuth	Status
f00502/3001sb/2006-249/000_1521	8607/1	0.00	000.0	Primary
f00502/3001sss500k/2006-233/ch060821115600	0002	2.26	138.5	Secondary (grouped)
f00502/3001sss500k/2006-233/ch060821121500	0003	5.22	043.7	Secondary (grouped)
f00502/3001sss500k/2006-233/ch060821115600	0001	8.16	239.9	Secondary (grouped)
f00502/3001sss500k/2006-233/ch060821120900	0001	15.98	138.4	Secondary (grouped)
ChicagoAwois	AWOIS # 13021	185.86	339.6	Secondary (grouped)

Hydrographer recommends revising location of charted crib as per current survey findings. Consequently, the charted pipeline attached to this crib will also need modification. The pipeline will be addressed separately. Hydrographer also recommends updating the least depth of this crib to present survey findings.

#### **Cartographically-Rounded Depth (Affected Charts):**

21ft (14926\_31, 14927\_1, 14905\_1) 3 <sup>1</sup>/2fm (14500\_1) 21ft (14901\_1)

### S-57 Data

Geo object 1:	Obstruction (OBSTRN)
Attributes:	CATOBS - 4:crib
	QUASOU - 6:least depth known
	SORDAT - 20061020
	SORIND - US,US,nsurf,F00502
	TECSOU - 1,2:found by echo-sounder,found by side scan sonar
	VALSOU - 6.326 m
	VERDAT - 12:Mean lower low water
	WATLEV - 3:always under water/submerged

# **Office Notes**

Concur. Update crib position and chart least depth to 20 ft.

# 1.30) AWOIS 13034-1897/1

## **Primary Feature for AWOIS Item #13034**

Search Position:	41° 46' 39.9" N, 087° 32' 20.9" W
Historical Depth:	[None]
Search Radius:	150
Search Technique:	S2, MB, ES
<b>Technique Notes:</b>	[None]

#### **History Notes:**

\*\*\*\*SOURCE UNKNOWN-- OBSTRUCTION, DEPTH OVER CRIB 22FT, WAS APPLIED BEFORE 1972 TO THE LAKE SURVEY CHART BEFORE NOS TOOK OVER THE CHART. (ENTERED 3/05 CEH)

### **Survey Summary**

Survey Position:	41° 46' 41.1" N, 087° 32' 21.5" W
Least Depth:	7.21 m (= 23.65 ft = 3.941 fm = 3 fm 5.65 ft)
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-268.18:52:32.126 (09/25/2006)
Survey Line:	f00502 / 3001sb / 2006-268 / 004_1850
Profile/Beam:	1897/1
Charts Affected:	14926_10, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

This charted submerged crib (AWOIS 13034) was seen on both 100% and 200% SSS records. SB investigation was conducted in a star pattern and the contact was seen on the echosounder trace. Echosounder data was corrected to Low Water Datum using observed verified tides with final zoning. The height of the crib is 1.08m and the least depth obtained was 23.6ft. The least depth obtained on the contact is deeper than the charted least depth. The actual crib lies approximately 70m NW of its charted location.

Address	Feature	Range	Azimuth	Status
f00502/3001sb/2006-268/004_1850	1897/1	0.00	000.0	Primary
f00502/3001sss500k/2006-257/ch060914095700	0001	26.95	349.6	Secondary
f00502/3001sss500k/2006-257/ch060914100800	0001	34.88	336.5	Secondary
ChicagoAwois	AWOIS # 13034	40.12	340.3	Secondary

Hydrographer recommends revising location of charted crib as per current survey findings.

#### **Cartographically-Rounded Depth (Affected Charts):**

23ft (14926\_10, 14926\_31, 14927\_1, 14905\_1)

4fm (14500\_1)

23ft (14901\_1)

# S-57 Data

Geo object 1:	Obstruction (OBSTRN)
Attributes:	CATOBS - 4:crib
	QUASOU - 6:least depth known
	SORDAT - 20061020
	SORIND - US,US,nsurf,F00502
	TECSOU - 1,2:found by echo-sounder,found by side scan sonar
	VALSOU - 7.208 m
	VERDAT - 12:Mean lower low water
	WATLEV - 3:always under water/submerged

## **Office Notes**

Concur. Update charted crib position. Update charted crib least depth to 23 ft.

# 1.31) AWOIS 1961- 3760/1

## **Primary Feature for AWOIS Item #1961**

Search Position:	41° 46' 20.8" N, 087° 31' 20.1" W
Historical Depth:	[None]
Search Radius:	100
Search Technique:	S2,MB,ES,DI,SD
<b>Technique Notes:</b>	[None]

#### **History Notes:**

CHARTING SOURCE UNKNOWN ■ CES 14926--OPR-Y411-HSB-80, ITEM A; CHARTED WRECK INVESTIGATED ON 6/20/80; ■ NOAA DIVE TEAM INVESTIGATION DETERMINED WRECK TO BE THAT OF TUG, TACOMA, ■ WOOD HULL, SUNK 11/4/29, LOA 73 FT.X 18 FT.X 9 FT., LEAST DEPTH OF 23.6 FT. ■ WAS OBTAINED BY DIVERS USING A LEAD LINE. HOWEVER, FATHOMETER REVEALED A ■ LEAST DEPTH OF 22.6 FT. THE WRECK LIES IN A SW (BOW)/NE (STERN) DIRECTION. ■ THE KEEL LIES ON THE BOTTOM WITH A 5 DEG. PORT LIST. TUG HAS ROUNDED STERN ■ WITH PROPELLER STILL INTACT. POSITION DETERMINED BY RANGE-AZIMUTH/DEL NORTE- ■ T-1. HYDROGAPHER RECOMMENDS CHARTING AS SUBMERGED WRECK WITH 19 FT LEAST ■ DEPTH. ■ DESCRIPTION ■ 26 TUG, WOOD, 73 FT L, 18 FT W, 9 FT D, SUNK BETWEEN 1910-11920 OFF CHICAGO■ LAKEFRONT IN 32 FT WITH 18 FT LD, (CHARTED W/20 FT LD),COE CONSIDERS AS ■ POTENTIAL HAZARD BUT REMOVAL NOT JUSTIFIED.

### **Survey Summary**

Survey Position:	41° 46' 20.5" N, 087° 31' 19.5" W
Least Depth:	6.32 m (= 20.74 ft = 3.457 fm = 3 fm 2.74 ft)
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-268.19:21:01.900 (09/25/2006)
Survey Line:	f00502 / 3001sb / 2006-268 / 008_1917
Profile/Beam:	3760/1
Charts Affected:	14926_11, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

This charted submerged wreck (AWOIS 1961) was seen on both 100% and 200% SSS records. SB investigation was conducted in a star pattern and the contact was seen on the echosounder trace. Echosounder data was corrected to Low Water Datum using observed verified tides with final zoning. The wreck has a height of 3.86m and the least depth obtained was 20.74ft. The least depth obtained on the wreck is shoaler than the charted surrounding depth area but it is not shoaler than the currently charted least depth on the charted wreck.

Address	Feature	Range	Azimuth	Status
f00502/3001sb/2006-268/008_1917	3760/1	0.00	000.0	Primary
f00502/3001sss500k/2006-257/ch060914102500	0001	3.00	188.4	Secondary
f00502/3001sss500k/2006-257/ch060914102800	0001	5.38	048.6	Secondary
ChicagoAwois	AWOIS # 1961	15.61	129.6	Secondary

# **Feature Correlation**

# Hydrographer Recommendations

Hydrographer recommends retaining wreck at current position and charting current surveyed soundings.

#### **Cartographically-Rounded Depth (Affected Charts):**

20ft (14926\_11, 14926\_31, 14927\_1, 14905\_1)

3 ½fm (14500\_1)

20ft (14901\_1)

# S-57 Data

Geo object 1:	Wreck (WRECKS)
---------------	----------------

Attributes:	CATWRK - 2:dangerous wreck
	QUASOU - 6:least depth known
	SORDAT - 20061020
	SORIND - US,US,nsurf,F00502
	TECSOU - 1,2:found by echo-sounder,found by side scan sonar
	VALSOU - 6.322 m
	VERDAT - 12:Mean lower low water
	WATLEV - 3:always under water/submerged

# **Office Notes**

Concur. Retain charted wreck position. Update charted wreck least depth to 20 ft.

# 1.32) AWOIS 13028- 8005/1

## **Primary Feature for AWOIS Item #13028**

Search Position:	41° 56' 30.0" N, 087° 35' 18.0" W
Historical Depth:	[None]
Search Radius:	200
Search Technique:	S2, MB, ES,DI, SD
<b>Technique Notes:</b>	[None]

#### **History Notes:**

LNM 30/90-- DANGEROUS WRECK IN POSITION APPROXIMATE AT LAT. 41/56/30.0N, LONG. 87/35/18.0W.

## **Survey Summary**

Survey Position:	41° 56' 32.7" N, 087° 35' 09.6" W
Least Depth:	9.15 m (= $30.02$ ft = $5.004$ fm = $5$ fm $0.02$ ft)
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-249.17:42:14.300 (09/06/2006)
Survey Line:	f00502 / 3001sb / 2006-249 / 034_1733
Profile/Beam:	8005/1
Charts Affected:	14928_1, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

The entire search radius of AWOIS 13028 was surveyed using 200% SSS and Singlebeam Echosounder. No contacts resembling a wreck were seen on the 100% or 200% SSS records. But one contact was seen on a 100% SSS record and the Hydrographer believes that it is a large rock pile. SB investigation was conducted in a star pattern and the contact was seen on the echosounder trace. Echosounder data was corrected to Low Water Datum using observed verified tides with final zoning. The height of the contact is 1.24m and the least depth obtained was 30.02ft. Though the least depth obtained on the contact is not shoaler than the surrounding depth area, the height obtained on the contact is over 1m. Hydrographer concludes that this contact may be significant and that the wreck does not exist as charted.

Address	Feature	Range	Azimuth	Status
f00502/3001sb/2006-249/034_1733	8005/1	0.00	000.0	Primary
f00502/3001sss500k/2006-229/ch060817103700	0001	3.13	152.1	Secondary
ChicagoAwois	AWOIS # 13028	211.31	066.6	Secondary (grouped)

Hydrographer recommends removing the charted submerged wreck (AWOIS 13028). Hydrographer also recommends adding a submerged obstruction (rock pile) with a least depth, as per current survey findings.

#### **Cartographically-Rounded Depth (Affected Charts):**

30ft (14928\_1, 14926\_31, 14927\_1, 14905\_1)

5fm (14500\_1)

30ft (14901\_1)

### S-57 Data

Geo object 1: Wreck (WRECKS) Attributes: CATWRK - 2:dangerous wreck QUASOU - 6:least depth known SORDAT - 20061020 SORIND - US,US,nsurf,F00502 TECSOU - 1,2:found by echo-sounder,found by side scan sonar VALSOU - 9.151 m VERDAT - 12:Mean lower low water WATLEV - 3:always under water/submerged

# **Office Notes**

Do not concur. SSS trace is inconclusive. Retain as a wreck. Update wreck position and remove PA text.

# 1.33) AWOIS 1960- 1315/1

## **Primary Feature for AWOIS Item #1960**

Search Position:	41° 46' 05.6" N, 087° 23' 31.2" W
Historical Depth:	[None]
Search Radius:	150
Search Technique:	S2,MB,ES,DI,SD
<b>Technique Notes:</b>	[None]

#### **History Notes:**

CHARTING SOURCE UNKNOWN ■ CES 14926--OPR-Y411-HSB-80, ITEM 5; INVESTIGATED ON 6/11/80, 6/12/80, A NOAA ■DIVE TEAM INVESTIGATION WAS MADE ON THE DAVID DOWS, A 5-MASTED SCHOONER SUNK ■IN 1889; THIS WOODEN WRECK WAS DISCOVERED IN 1964 AND HAS BEEN DYNAMITED AND ■CLEARED AS A NAVIGATION HAZARD; A THOROUGH DIVE INSPECTION REVEALED DEBRIS IS■CONFINED TO AN AREA 150 FT IN DIAMETER; LEAST DEPTH OF 20.9 FT AT LWD WAS ■FOUND AT POSITION 114 WITH DIVERS USING A LEAD LINE, DUE TO POOR RANGE/RANGE ■CONTROL ON DAY 163, A RANGE/AZIMUTH AT POSITION 117 WAS DETERMINED ON JD 164;■HYDROGRAPHER RECOMMENDS RETAINING THE CHARTED WRECK BASED ON POS. 117 DATA ■AND CHANGE THE CHARTED LD FROM 22 FT. TO 21 FT.(PREDICTED). ■DESCRIPTION■ 26 SCHOONER, SUNK 1908, 20 FT LD(CHARTED W/22 FT LD); REMOVAL NOT JUSTIFIED ■ SINCE 1 1/2 TO 2 MILES FROM PRINCIPAL STEAMER LANES.

### **Survey Summary**

Survey Position:	41° 46' 04.9" N, 087° 23' 30.2" W
Least Depth:	7.84 m (= 25.73 ft = 4.288 fm = 4 fm 1.73 ft)
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-275.15:40:55.900 (10/02/2006)
Survey Line:	f00502 / 3001sb / 2006-275 / 000_1539
Profile/Beam:	1315/1
Charts Affected:	14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

This charted submerged wreck (AWOIS 1960) was seen on both 100% and 200% SSS records. SB investigation was conducted in a star pattern and the wreck was seen on the echosounder trace. Echosounder data was corrected to Low Water Datum using observed verified tides with final zoning. The wreck has a height of 2.25m and the least depth obtained was 25.73ft, which is not shoaler than the currently charted sounding on wreck.

Address	Feature	Range	Azimuth	Status
f00502/3001sb/2006-275/000_1539	1315/1	0.00	000.0	Primary
f00502/3001sss500k/2006-258/ch060915100000	0001	14.01	350.2	Secondary
f00502/3001sss500k/2006-258/ch060915095600	0001	28.73	358.6	Secondary
ChicagoAwois	AWOIS # 1960	29.48	132.3	Secondary
f00502/3001sss500k/2006-258/ch060915100600	0001	33.67	344.8	Secondary

# **Feature Correlation**

# **Hydrographer Recommendations**

Hydrographer recommends retaining wk as charted and charting current surveyed soundings.

#### **Cartographically-Rounded Depth (Affected Charts):**

25ft (14926\_31, 14927\_1, 14905\_1)

4 ¼fm (14500\_1)

25ft (14901\_1)

## S-57 Data

Geo object 1:	Wreck (WRECKS)
Attributes:	CATWRK - 2:dangerous wreck
	QUASOU - 6:least depth known
	SORDAT - 20061020
	SORIND - US,US,nsurf,F00502
	TECSOU - 1,2:found by echo-sounder,found by side scan sonar
	VALSOU - 7.841 m
	VERDAT - 12:Mean lower low water
	WATLEV - 3:always under water/submerged

# **Office Notes**

Do not concur. Update charted wreck position. Update charted wreck least depth value of 25 ft.

# 1.34) AWOIS 1950- 5301/1

## **Primary Feature for AWOIS Item #1950**

Search Position:41° 44' 54.1" N, 087° 27' 00.2" WHistorical Depth:[None]Search Radius:350Search Technique:S2,MB,ES,DI,SDTechnique Notes:[None]

#### **History Notes:**

CES 14926--OPR-Y411-HSB-80, ITEM B; 3 LOCAL SOURCES CONFIRM EXISTENCE OF A ■CAR FERRY, LD APPROX. 28 FT IN DEPTHS GREATER THAN 40 FT. WK, NOT VERIFIED BY HYDROGRAPHER BUT RECOMMENDS CHART AS POS. APPROX. UNTIL VERIFIED.

### **Survey Summary**

Survey Position:	41° 44' 59.0" N, 087° 26' 56.4" W
Least Depth:	11.34 m (= 37.19 ft = 6.199 fm = 6 fm 1.19 ft)
TPU (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-275.16:00:43.500 (10/02/2006)
Survey Line:	f00502 / 3001sb / 2006-275 / 000_1555
Profile/Beam:	5301/1
Charts Affected:	14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

This charted submerged wreck (AWOIS 1950) was seen on both 100% and 200% SSS records. SB investigation was conducted in a star pattern and the contact was seen on the echosounder trace. Echosounder data was corrected to Low Water Datum using observed verified tides with final zoning. The contact has a height of 1.9 m and the least depth obtained was 37ft.

Address	Feature	Range	Azimuth	Status
f00502/3001sb/2006-275/000_1555	5301/1	0.00	000.0	Primary
f00502/3001sss500k/2006-258/ch060915084300	0003	15.70	197.0	Secondary
f00502/3001sss500k/2006-258/ch060915084300	0004	18.50	013.7	Secondary
f00502/3001sss500k/2006-258/ch060915090000	0001	22.14	011.9	Secondary
f00502/3001sss500k/2006-258/ch060915084300	0002	27.88	177.5	Secondary

f00502/3001sss500k/2006-258/ch060915084300	0001	74.07	015.5	Secondary (grouped)
ChicagoAwois	AWOIS # 1950	174.10	029.6	Secondary

Hydrographer recommends retaining the wreck as charted at its current position. Hydrographer also recommends removing the charted "PA" and adding a least depth sounding over the wreck.

#### **Cartographically-Rounded Depth (Affected Charts):**

37ft (14926\_31, 14927\_1, 14905\_1) 6 ¼fm (14500\_1) 6fm (14901\_1)

### S-57 Data

Geo object 1: Wreck (WRECKS)

Attributes:CATWRK - 1:non-dangerous wreckQUASOU - 6:least depth knownSORDAT - 20061020SORIND - US,US,nsurf,F00502TECSOU - 1,2:found by echo-sounder,found by side scan sonarVALSOU - 11.337 mVERDAT - 12:Mean lower low waterWATLEV - 3:always under water/submerged

## **Office Notes**

Do not concur. Update charted wreck position at a least depth of 37 ft. Remove PA text.

# 1.35) AWOIS 13057-0002

## **Primary Feature for AWOIS Item #13057**

Search Position:41° 39' 15.5" N, 087° 07' 29.8" WHistorical Depth:[None]Search Radius:200Search Technique:S2, MB,ES

Technique Notes: [None]

#### **History Notes:**

\*\*\*\*UNKNOWN SOURCE-- DEPTH OVER CRIB 33 FT WAS APPLIED BEFORE 1975 TO THE LAKE SURVEY CHART BEFORE NOS TOOK OVER THE CHART.■ L1156/92-- 9/18/92; REVISED THE DEPTH OVER CRIB TO 38 FT. THEN L1156/92 WAS REAPPLIED IN 1993 AND REVISED THE DEPTH OVER CRIB TO 33 FT. (ENTERED 4/05 CEH)

### **Survey Summary**

Survey Position:	41° 39' 15.2" N, 087° 07' 29.4" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-304.04:38:58 (10/31/2006)
Survey Line:	f00502 / 3001sss500k / 2006-293 / ch061020093300
Contact/Point:	0002/1
Charts Affected:	14905_4, 14926_15, 14926_32, 14905_1, 14901_1, 14500_1

#### **Remarks:**

This charted submerged crib (AWOIS 13057) was seen on both 100% and 200% SSS records. The crib lies on the central western edge of the charted crib symbol. Singlebeam investigation was not conducted for this crib d/t the presence of a dive boat at this location. A least depth was not obtained.

Address	Feature	Range	Azimuth	Status
f00502/3001sss500k/2006-293/ch061020093300	0002	0.00	000.0	Primary
f00502/3001sss500k/2006-293/ch061020091400	0002	1.67	005.4	Secondary
f00502/3001sss500k/2006-293/ch061020091900	0001	3.31	091.0	Secondary
ChicagoAwois	AWOIS # 13057	12.24	132.2	Secondary

Hydrographer recommends relocated the charted crib slightly to the west so that this Imagery feature lies at the center of the charted crib symbol. Hydrographer also recommends investigating at a later date to obtain a current least depth.

# S-57 Data

Geo object 1: Obstruction (OBSTRN) Attributes: CATOBS - 4:crib QUASOU - 2:depth unknown SORDAT - 20061020 SORIND - US,US,nsurf,F00502 TECSOU - 2:found by side scan sonar VERDAT - 12:Mean lower low water WATLEV - 3:always under water/submerged

# **Office Notes**

Do not concur. Retain crib position as charted.

# 1.36) AWOIS 13045- 8408/1

## **Primary Feature for AWOIS Item #13045**

Search Position:41° 39' 45.7" N, 087° 24' 17.2" WHistorical Depth:[None]Search Radius:100Search Technique:S2, MB, ESTechnique Notes:[None]

#### **History Notes:**

\*\*\*\*SOURCE UNKNOWN-- PWI WITH DEPTH OVER CRIB 27 FEET IN POSITION OF LAT. 41/39/45.4N, LONG. 87/24/17.33W WAS APPLIED BEFORE 1972 TO THE LAKE SURVEY CHART BEFORE NOS TOOK OVER THE CHART. (ENTERED 4/05 CEH)

### **Survey Summary**

Survey Position:	41° 39' 47.4" N, 087° 24' 18.6" W
Least Depth:	7.99 m (= $26.21$ ft = $4.369$ fm = $4$ fm $2.21$ ft)
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-291.18:25:06.827 (10/18/2006)
Survey Line:	f00502 / 3001sb / 2006-291 / 000_1816
Profile/Beam:	8408/1
Charts Affected:	14926_13, 14926_31, 14926_32, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

This charted submerged crib (AWOIS 13045) was seen on both 100% and 200% SSS records. SB investigation was conducted in a star pattern and the contact was seen on the echosounder trace. Echosounder data was corrected to Low Water Datum using observed verified tides with final zoning. The height of the crib is 2.01m and the least depth obtained on the crib is 26.19ft, while the crib is currently charted as having a least depth of 27ft. The Hydrographer also notes that the position of the crib, as per current survey findings, is approximately 50m to the northwest of the charted position.

Address	Feature	Range	Azimuth	Status
f00502/3001sb/2006-291/000_1816	8408/1	0.00	000.0	Primary
f00502/3001sss500k/2006-270/ch060927091200	0003	1.49	050.0	Secondary
f00502/3001sss500k/2006-270/ch060927090300	0001	10.99	067.8	Secondary
f00502/3001sss500k/2006-270/ch060927091200	0002	28.88	324.0	Secondary

f00502/3001sss500k/2006-270/ch060927090600	0001	29.25	344.9	Secondary
f00502/3001sss500k/2006-270/ch060927091200	0001	39.90	339.3	Secondary
ChicagoAwois	AWOIS # 13045	62.03	329.6	Secondary

Hydrographer recommends relocating the charted submerged crib as per current survey findings. Hydrographer also recommends revising the least depth of the crib as per current survey findings.

#### **Cartographically-Rounded Depth (Affected Charts):**

26ft (14926\_13, 14926\_31, 14926\_32, 14927\_1, 14905\_1)

4 ¼fm (14500\_1)

26ft (14901\_1)

### S-57 Data

Geo object 1:	Obstruction (OBSTRN)
Attributes:	CATOBS - 4:crib
	QUASOU - 6:least depth known
	SORDAT - 20061020
	SORIND - US,US,nsurf,F00502
	TECSOU - 1,2:found by echo-sounder,found by side scan sonar
	VALSOU - 7.990 m
	VERDAT - 12:Mean lower low water
	WATLEV - 3:always under water/submerged

## **Office Notes**

Concur. Update crib position. Update crib least depth value to 26 ft.

# 1.37) AWOIS 13048- 4565/1

## **Primary Feature for AWOIS Item #13048**

Search Position:	41° 38' 06.0" N, 087° 23' 12.0" W
Historical Depth:	[None]
Search Radius:	200
Search Technique:	VS, SD
<b>Technique Notes:</b>	[None]

#### **History Notes:**

LNM 05/87-- A SCOW IS BROKEN IN HALF AND BEACHED AT APPROXIMATE LAT. 41/38/06.0N, LONG. 87/23/12.0W. CHARTED AS A VISIBLE WRECK. (ENTERED 4/05 CEH)

### **Survey Summary**

Survey Position:	41° 38' 07.9" N, 087° 23' 17.8" W
Least Depth:	4.32 m (= 14.17 ft = 2.362 fm = 2 fm 2.17 ft)
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-291.17:21:06.200 (10/18/2006)
Survey Line:	f00502 / 3001sb / 2006-291 / 000_1716
Profile/Beam:	4565/1
Charts Affected:	14926_13, 14926_32, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

A visual investigation was done within the entire search radius of the charted visible wreck (AWOIS 13048) and no visible obstructions or wrecks were seen. The entire search radius of the charted visible wreck (AWOIS 13048) was then surveyed using 200% SSS and SB Echosounder. A contact was seen on both 100% and 200% SSS records, but it does not necessarily resemble a wreck. SB investigation was conducted in a star pattern and the contact was seen on the echosounder trace. Echosounder data was corrected to Low Water Datum using observed verified tides with final zoning. The height of the object is 1.07m and the least depth obtained was 14.2m.

Address	Feature	Range	Azimuth	Status
f00502/3001sb/2006-291/000_1716	4565/1	0.00	000.0	Primary
f00502/3001sss500k/2006-270/ch060927102600	0001	9.49	291.6	Secondary
f00502/3001sss500k/2006-270/ch060927103100	0001	17.54	093.2	Secondary
ChicagoAwois	AWOIS # 13048	145.68	294.1	Secondary

Hydrographer recommends removing the visible wreck "PA" and charting a submerged obstruction at the new location as found per current survey findings. Hydrographer also recommends charting a least depth for the obstruction.

#### **Cartographically-Rounded Depth (Affected Charts):**

14ft (14926\_13, 14926\_32, 14927\_1, 14905\_1)

2 ¼fm (14500\_1)

14ft (14901\_1)

## S-57 Data

Geo object 1: Wreck (WRECKS)

Attributes:

CATWRK - 2:dangerous wreck QUASOU - 6:least depth known SORDAT - 20061020 SORIND - US,US,nsurf,F00502 TECSOU - 1,2:found by echo-sounder,found by side scan sonar VALSOU - 4.320 m VERDAT - 12:Mean lower low water WATLEV - 3:always under water/submerged

# **Office Notes**

Concur with clarification. Remove visible wreck and PA text. Chart submerged wreck.

# 1.38) AWOIS 13050- 4808/1

## **Primary Feature for AWOIS Item #13050**

Search Position:	41° 38' 03.7" N, 087° 21' 43.1" W
Historical Depth:	[None]
Search Radius:	200
Search Technique:	S2, MB, ES
<b>Technique Notes:</b>	[None]

#### **History Notes:**

UNKNOWN SOURCE-- DEPTH OVER CRIB 27 FT WAS APPLIED BEFORE 1972 TO THE LAKE SURVEY CHART BEFORE NOS TOOK OVER THE CHART. (ENTERED 4/05 CEH)

### **Survey Summary**

Survey Position:	41° 38' 04.0" N, 087° 21' 43.2" W
Least Depth:	8.52 m (= 27.96 ft = 4.659 fm = 4 fm 3.96 ft)
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-291.17:37:38.278 (10/18/2006)
Survey Line:	f00502 / 3001sb / 2006-291 / 000_1732
Profile/Beam:	4808/1
Charts Affected:	14926_14, 14926_32, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

The entire search radius of this charted crib (AWOIS 13050) was surveyed using 200% SSS and SB Echosounder. The SSS records show that the crib is comprised of three separate structures which are all located within the limits of the charted crib. A continuous line of SB investigation was conducted over the three contacts. Echosounder data was corrected to Low Water Datum using observed verified tides with final zoning. One least depth was chosen to represent all three contacts since they are so close together. The tallest height is 2.49m and the least depth obtained was 27.96ft. The least depth obtained on the contacts is not shoaler than the currently charted least depth.

Address	Feature	Range	Azimuth	Status
f00502/3001sb/2006-291/000_1732	4808/1	0.00	000.0	Primary
f00502/3001sss500k/2006-270/ch060927100900	0003	0.69	118.2	Secondary
f00502/3001sss500k/2006-291/ch061018094600	0003	7.81	075.8	Secondary
ChicagoAwois	AWOIS # 13050	8.54	349.7	Secondary
f00502/3001sss500k/2006-270/ch060927100900	0004	17.94	129.4	Secondary

f00502/3001sss500k/2006-270/ch060927101300	0001	30.71	140.2	Secondary
f00502/3001sss500k/2006-270/ch060927100900	0002	32.05	134.8	Secondary
f00502/3001sss500k/2006-291/ch061018094600	0001	32.47	136.6	Secondary
f00502/3001sss500k/2006-270/ch060927100900	0001	42.85	098.4	Secondary
f00502/3001sss500k/2006-291/ch061018094600	0002	44.88	099.8	Secondary

Hydrographer recommends retaining crib as charted.

#### **Cartographically-Rounded Depth (Affected Charts):**

28ft (14926\_14, 14926\_32, 14927\_1, 14905\_1)

4 ½fm (14500\_1)

28ft (14901\_1)

# S-57 Data

Geo object 1:	Obstruction (OBSTRN)
Attributes:	CATOBS - 4:crib
	QUASOU - 6:least depth known
	SORDAT - 20061020
	SORIND - US,US,nsurf,F00502
	TECSOU - 1,2:found by echo-sounder,found by side scan sonar
	VALSOU - 8.521 m
	VERDAT - 12:Mean lower low water
	WATLEV - 3:always under water/submerged

# **Office Notes**

Concur. Retain crib as charted.

# 1.39) AWOIS 13052-1457/1

## **Primary Feature for AWOIS Item #13052**

Search Position:	41° 38' 25.8" N, 087° 20' 30.9" W
Historical Depth:	[None]
Search Radius:	200
Search Technique:	S2,MB,ES
<b>Technique Notes:</b>	[None]

#### **History Notes:**

UNKNOWN SOURCE-- DEPTH OVER CRIB 25 FT WAS APPLIED BEFORE 1972 TO THE LAKE SURVEY CHART BEFORE NOS TOOK OVER THE CHART. (ENTERED 4/05 CEH)

### **Survey Summary**

Survey Position:	41° 38' 26.3" N, 087° 20' 32.8" W
Least Depth:	9.80 m (= 32.15 ft = 5.359 fm = 5 fm 2.15 ft)
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-291.17:52:45.064 (10/18/2006)
Survey Line:	f00502 / 3001sb / 2006-291 / 000_1751
Profile/Beam:	1457/1
Charts Affected:	14926_14, 14926_32, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

The entire search radius of this charted crib (AWOIS 13052) was surveyed using 200% SSS and SB Echosounder. This charted crib was seen on both 100% and 200% SSS records. SB investigation was conducted in a star pattern and the contact was seen on the echosounder trace. Echosounder data was corrected to Low Water Datum using observed verified tides with final zoning. The height of the crib is 1.6m and the least depth obtained was 32.17ft. The least depth obtained on the crib is not shoaler than the currently charted least depth.

Address	Feature	Range	Azimuth	Status
f00502/3001sb/2006-291/000_1751	1457/1	0.00	000.0	Primary
f00502/3001sss500k/2006-270/ch060927115300	0001	0.78	172.7	Secondary
f00502/3001sss500k/2006-291/ch061018091800	0001	2.61	048.3	Secondary
f00502/3001sss500k/2006-270/ch060927114700	0001	15.47	313.6	Secondary
ChicagoAwois	AWOIS # 13052	47.24	290.2	Secondary

Hydrographer recommends retaining crib as charted.

#### Cartographically-Rounded Depth (Affected Charts):

32ft (14926\_14, 14926\_32, 14927\_1, 14905\_1) 5 ¼fm (14500\_1)

5fm (14901\_1)

## S-57 Data

Geo object 1:	Obstruction (OBSTRN)
Attributes:	CATOBS - 4:crib
	QUASOU - 6:least depth known
	SORDAT - 20061020
	SORIND - US,US,nsurf,F00502
	TECSOU - 1,2:found by echo-sounder,found by side scan sonar
	VALSOU - 9.800 m
	VERDAT - 12:Mean lower low water
	WATLEV - 3:always under water/submerged

# **Office Notes**

Concur with clarification. Retain crib position. Update charted crib least depth to 32 ft.

# 1.40) AWOIS 13058- 2829/1

## **Primary Feature for AWOIS Item #13058**

Search Position:	41° 38' 31.3" N, 087° 20' 31.3" W			
Historical Depth:	[None]			
Search Radius:	150			
Search Technique:	S2,MB,ES			
<b>Technique Notes:</b>	[None]			

#### **History Notes:**

L259/05-- 2/2/05; ADDED NEW CRIB AT LAT. 41/38/31.28N, LONG. 87/20/31.25W. LABELED PWI DEPTH OVER CRIB 32 FT. (ENTERED 4/05 CEH)

## **Survey Summary**

Survey Position:	41° 38' 31.2" N, 087° 20' 31.3" W
Least Depth:	9.72 m (= 31.89 ft = 5.314 fm = 5 fm 1.89 ft)
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-291.17:54:10.800 (10/18/2006)
Survey Line:	f00502 / 3001sb / 2006-291 / 000_1751
Profile/Beam:	2829/1
Charts Affected:	14926_14, 14926_32, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

The entire search radius of this charted crib (AWOIS 13058) was surveyed using 200% SSS and SB Echosounder. This charted crib was seen on both 100% and 200% SSS records. SB investigation was conducted in a star pattern and the contact was seen on the echosounder trace. Echosounder data was corrected to Low Water Datum using observed verified tides with final zoning. The height of the crib is 2.94m and the least depth obtained on the crib of 31.91ft is shoaler than the currently charted least depth by only 0.1 feet.

Address	Feature	Range	Azimuth	Status
f00502/3001sb/2006-291/000_1751	2829/1	0.00	000.0	Primary
ChicagoAwois	AWOIS # 13058	1.31	203.5	Secondary
f00502/3001sss500k/2006-291/ch061018092400	0001	9.28	020.3	Secondary
f00502/3001sss500k/2006-270/ch060927120000	0001	12.98	151.4	Secondary

## Hydrographer Recommendations

Hydrographer recommends retaining crib as charted.

#### Cartographically-Rounded Depth (Affected Charts):

32ft (14926\_14, 14926\_32, 14927\_1, 14905\_1) 5 ¼fm (14500\_1)

5fm (14901\_1)

## S-57 Data

Geo object 1:	Obstruction (OBSTRN)
Attributes:	CATOBS - 4:crib
	QUASOU - 6:least depth known
	SORDAT - 20061020
	SORIND - US,US,nsurf,F00502
	TECSOU - 1,2:found by echo-sounder,found by side scan sonar
	VALSOU - 9.719 m
	VERDAT - 12:Mean lower low water
	WATLEV - 2:always dry

## **Office Notes**

Concur with clarification. Retain crib position. Update crib least depth to 31 ft.

## 1.41) AWOIS 13054- 2481/1

### **Primary Feature for AWOIS Item #13054**

Search Position:	41° 37' 59.5" N, 087° 12' 13.6" W
Historical Depth:	[None]
Search Radius:	200
Search Technique:	S2,MB,ES
<b>Technique Notes:</b>	[None]

#### **History Notes:**

UNKNOWN SOURCE-- DEPTH OVER PWI CRIB 15 FT WAS APPLIED BEFORE 1972 TO THE LAKE SURVEY CHART BEFORE NOS TOOK OVER THE CHART. (ENTERED 4/05 CEH)

#### **Survey Summary**

Survey Position:	41° 37' 57.3" N, 087° 12' 10.2" W
Least Depth:	4.96 m (= 16.28 ft = 2.713 fm = 2 fm 4.28 ft)
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-293.20:55:22.600 (10/20/2006)
Survey Line:	f00502 / 3001sb / 2006-293 / 500_2052
Profile/Beam:	2481/1
Charts Affected:	14926_32, 14905_1, 14901_1, 14500_1

#### **Remarks:**

The entire search radius of this charted crib (AWOIS 13054) was surveyed using 200% SSS and SB Echosounder. This charted crib was seen on both 100% and 200% SSS records. SB investigation was conducted in a star pattern and the contact was seen on the echosounder trace. Echosounder data was corrected to Low Water Datum using observed verified tides with final zoning. The height of the crib is 2.49m and the least depth obtained was 16.27ft. The least depth obtained on the crib is not shoaler than the currently charted least depth. The least depth on the crib was located just slightly E of the charted symbol.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
f00502/3001sb/2006-293/500_2052	2481/1	0.00	000.0	Primary
f00502/3001sss500k/2006-293/ch061020125900	0001	15.22	078.8	Secondary
ChicagoAwois	AWOIS # 13054	102.98	131.2	Secondary

## **Hydrographer Recommendations**

Hydrographer recommends relocating the charted crib slightly to the E as per current survey findings.

#### Cartographically-Rounded Depth (Affected Charts):

16ft (14926\_32, 14905\_1)

2 ¾fm (14500\_1)

16ft (14901\_1)

## S-57 Data

Geo object 1:	Obstruction (OBSTRN)
Attributes:	CATOBS - 4:crib
	QUASOU - 6:least depth known
	SORDAT - 20061020
	SORIND - US,US,nsurf,F00502
	TECSOU - 1,2:found by echo-sounder,found by side scan sonar
	VALSOU - 4.962 m
	VERDAT - 12:Mean lower low water
	WATLEV - 3:always under water/submerged

## **Office Notes**

Concur with clarification. Update crib position. Update crib least depth to 16 ft.

## 1.42) AWOIS 13055-1694/1

### **Primary Feature for AWOIS Item #13055**

Search Position:	41° 38' 23.1" N, 087° 10' 44.8" W
Historical Depth:	[None]
Search Radius:	200
Search Technique:	S2, MB, ES
<b>Technique Notes:</b>	[None]

#### **History Notes:**

\*\*\*\*UNKNOWN SOURCE-- DEPTH OVER CRIB 28 FT WAS APPLIED BEFORE 1975 TO THE LAKE SURVEY CHART BEFORE NOS TOOK OVER THE CHART. THEN UNKNOWN SOURCE CHANGES THE DEPTH TO 29 FT BETWEEN 1993 AND 2002 ON CHART 14905. ON CHART 14926 THE DEPTH OF THE CRIB IS STILL 28 FT.

#### **Survey Summary**

Survey Position:	41° 38' 23.0" N, 087° 10' 44.0" W
Least Depth:	7.63 m (= 25.02 ft = 4.170 fm = 4 fm 1.02 ft)
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-293.20:37:33.400 (10/20/2006)
Survey Line:	f00502 / 3001sb / 2006-293 / 000_2035
Profile/Beam:	1694/1
Charts Affected:	14905_4, 14926_15, 14926_32, 14905_1, 14901_1, 14500_1

#### **Remarks:**

The entire search radius of this charted crib (AWOIS 13055) was surveyed using 200% SSS and SB Echosounder. This charted crib was seen on both 100% and 200% SSS records. SB investigation was conducted in a star pattern and the contact was seen on the echosounder trace. Echosounder data was corrected to Low Water Datum using observed verified tides with final zoning. The height of the crib is 2.71m and the least depth obtained on the crib is 25ft, which is shoaler than the currently charted least depth of 29ft. The least depth on the crib is located on the NE edge of the charted crib symbol.

### **Feature Correlation**

Address	Feature	Range	Azimuth	Status
f00502/3001sb/2006-293/000_2035	1694/1	0.00	000.0	Primary
f00502/3001sss500k/2006-293/ch061020121800	0002	1.79	110.9	Secondary
f00502/3001sss500k/2006-293/ch061020122900	0001	4.26	087.1	Secondary

ChicagoAwois	AWOIS # 13055	19.59	097.1	Secondary
f00502/3001sss500k/2006-293/ch061020122900	0003	20.21	073.9	Secondary
f00502/3001sss500k/2006-293/ch061020122900	0002	39.09	072.1	Secondary
f00502/3001sss500k/2006-293/ch061020121800	0001	39.21	074.1	Secondary

## **Hydrographer Recommendations**

Hydrographer recommends relocating the submerged crib symbol, as per current survey findings. Hydrographer also recommends updating the least depth, as per current survey findings.

#### **Cartographically-Rounded Depth (Affected Charts):**

25ft (14905\_4, 14926\_15, 14926\_32, 14905\_1)

4fm (14500\_1)

25ft (14901\_1)

## S-57 Data

Geo object 1:	Obstruction (OBSTRN)
Attributes:	CATOBS - 4:crib
	QUASOU - 6:least depth known
	SORDAT - 20061020
	SORIND - US,US,nsurf,F00502
	TECSOU - 1,2:found by echo-sounder,found by side scan sonar
	VALSOU - 7.627 m
	VERDAT - 12:Mean lower low water
	WATLEV - 3:always under water/submerged

## **Office Notes**

Concur. Update charted crib position. Update charted crib least depth to 25 ft.

## 1.43) AWOIS 13056- 8590/1

### **Primary Feature for AWOIS Item #13056**

Search Position:	41° 39' 14.5" N, 087° 07' 36.6" W
Historical Depth:	[None]
Search Radius:	150
Search Technique:	S2,MB,ES
Technique Notes:	[None]

#### **History Notes:**

LNM 30/93-- 10/02/1992; REMOVED OLD CRIB AT LAT. 41/39/08.9N, LONG. 87/07/41.8W. ADDED NEW CRIB AT LAT. 41/39/14.5N, LONG. 87/07/36.6W. LEAST DEPTH OVER CRIB 38FT. (ENTERED 4/05 CEH)

#### **Survey Summary**

Survey Position:	41° 39' 13.9" N, 087° 07' 36.7" W
Least Depth:	11.38 m (= 37.32 ft = 6.220 fm = 6 fm 1.32 ft)
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-293.17:34:42.053 (10/20/2006)
Survey Line:	f00502 / 3001sb / 2006-293 / 000_1725
Profile/Beam:	8590/1
Charts Affected:	14905_4, 14926_15, 14926_32, 14905_1, 14901_1, 14500_1

#### **Remarks:**

This charted submerged crib (AWOIS 13056) was seen on both 100% and 200% SSS records. SB investigation was conducted in a star pattern and the contact was seen on the echosounder trace. Echosounder data was corrected to Low Water Datum using observed verified tides with final zoning. A least depth of 37.3 feet was obtained on the crib which is currently charted as having a least depth of 38ft. The actual crib lies at the southwest corner of the charted crib symbol.

Address	Feature	Range	Azimuth	Status
f00502/3001sb/2006-293/000_1725	8590/1	0.00	000.0	Primary
f00502/3001sss500k/2006-293/ch061020091400	0001	7.61	133.8	Secondary
f00502/3001sss500k/2006-293/ch061020093300	0001	11.97	223.4	Secondary
ChicagoAwois	AWOIS # 13056	20.02	184.8	Secondary
f00502/3001sss500k/2006-293/ch061020091900	0002	23.43	250.5	Secondary

### **Feature Correlation**

## **Hydrographer Recommendations**

Hydrographer recommends relocating the charted crib slightly to the southwest so that this bathymetry feature falls in the center of the charted crib. Hydrographer also recommends revising the charted least depth from 38ft to 37ft.

#### **Cartographically-Rounded Depth (Affected Charts):**

37ft (14905\_4, 14926\_15, 14926\_32, 14905\_1) 6 ¼fm (14500\_1) 6fm (14901\_1)

#### S-57 Data

Geo object 1:	Obstruction (OBSTRN)
Attributes:	CATOBS - 4:crib
	QUASOU - 6:least depth known
	SORDAT - 20061020
	SORIND - US,US,nsurf,F00502
	TECSOU - 1,2:found by echo-sounder,found by side scan sonar
	VALSOU - 11.375 m
	VERDAT - 12:Mean lower low water
	WATLEV - 3:always under water/submerged

## **Office Notes**

Concur. Update charted crib position. Update charted crib least depth to 37 ft.

## 1.44) AWOIS 13024 - Foularea/pier - dp1

### **Primary Feature for AWOIS Item #13024**

Search Position:	41° 58' 40.3" N, 087° 38' 45.7" W
Historical Depth:	[None]
Search Radius:	150
Search Technique:	S2, MB, ES
<b>Technique Notes:</b>	[None]

#### **History Notes:**

\*\*\*\*UNKNOWN SOURCE-- THE SOURCE THAT APPLIED THE OBSTRUCTION CENTERED AT LAT. 41/58/40.28N, LONG. 087/38/45.56W, COULD NOT BE FOUND. THE OBSTRUCTION FIRST APPEARED ON THE 20TH EDITION OF CHART 14927, MAY 2/87. THE NORTHERN POINT OF THE OBSTRUCTION IS AT LAT. 41/58/42.7N, LONG. 87/38/45.70W, THE MOST SOUTHERN POINT IS LOCATED AT LAT. 41/58/37.9N, LONG. 87/38/45.61 AND THE MOST EASTERN POINT IS LAT. 41/58/40.8N, LONG.87/38/43.84W. (ENTERED 3/05 CEH)

#### **Survey Summary**

Survey Position:	41° 58' 41.1" N, 087° 38' 45.6" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-226.17:14:06.000 (08/14/2006)
DP Dataset:	f00502 / 3001dp_non_echosounder / 2006-226 / 08142006
Profile/Beam:	1/1
Charts Affected:	14926_3, 14926_4, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

AWOIS 13024 is charted as a foul area / submerged obstruction. The obstruction is actually visible and appears to be remnants of an old steel pier. Area was not investigated with SSS, so the extent of a submerged foul area could not be verified.

### **Feature Correlation**

Address	Feature	Range	Azimuth	Status
f00502/3001dp_non_echosounder/2006-226/08142006	1/1	0.00	000.0	Primary
ChicagoAwois	AWOIS # 13024	25.99	006.3	Secondary

## **Hydrographer Recommendations**

Hydrographer recommends retaining foul area as charted and adding exposed wreck to chart.

## S-57 Data

Geo object 1: Shoreline Construction (SLCONS)

Attributes: CATSLC - 4:pier (jetty)

CONDTN - 2:ruined

NATCON - 7:metal

STATUS - 1:permanent

WATLEV - 2:always dry

## **Office Notes**

Do not concur. Retain charted foul area. Defer to MCD for pier charting recommendation.

## 1.45) AWOIS 1967- DP2569

#### **Primary Feature for AWOIS Item #1967**

Search Position:	41° 48' 28.5" N, 087° 35' 01.4" W
Historical Depth:	[None]
Search Radius:	100
Search Technique:	DI,SD,S2,ES
<b>Technique Notes:</b>	[None]

#### **History Notes:**

LS2232/64 CES 14926--OPR-Y411-HSB-80, ITEM 3; INVESTIGATED 6/20/80, BOILER EXPOSED 0.7 FT AT LWD, MEASURES 5 X 10 FT., REMAINS OF VESSEL SILVER SPRAY, SUNK 1914, WOODEN HULLED PASS. STMR; MARINE POLICE SAY NEVER OBSERVED BOILER EXPOSED AND CONSIDER IT A DANGEROUS OBSTRUCTION, LOCALLY KNOWN TO BOATERS AND REFERRED TO AS, THE BOILER; A DIVER INVESTIGATION FAILED TO FIND ANY ADDITIONAL REMAINS OF WRECK; POS. DETERMINED BY R/AZ. DESCRIPTION 26 PASS STEAMER, 109 FT L, 22 FT W, 8.3 FT D; SUNK 1914 ON CHICAGO LAKEFRONT WOOD HULL GONE, BOILER, PROP SHAFT, SMALL TANK REMAIN AS OF REPORT DATE OF 1/62; COE CONSIDERED REMOVAL UNNECESSARY SINCE IN SHALLOW, ROCKY AREA, SUBSEQUENTLY STRUCK BY PRIVATE VESSEL WITH EXTENSIVE DAMAGE, RESULTING IN CIVIL ACTION 62 C 1364 AGAINST USA, REPORTED POSITION WAS LAT. 41-48-28.39N, LONG. 87-35-01.25W. DESURVEY REQUIREMENTS FULL; STATUS CHECK

#### **Survey Summary**

Survey Position:	41° 48' 29.7" N, 087° 35' 00.1" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-290.16:53:57.000 (10/17/2006)
DP Dataset:	f00502 / 3001dp_non_echosounder / 2006-290 / 10172006
Profile/Beam:	1/1
Charts Affected:	14926_8, 14926_9, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

AWOIS 1967 was not investigated with SSS because it is located in water that is too shallow for SSS. However, the object was visible and it appears to be a cabin of a boat in ruins. A DP was taken on this object and the hydrographer believes that this visible wreck is the charted obstruction referred to by AWOIS 1967. This item is charted as a "snag/stum, always under water/submerged" in the corresponding ENC, US4IL10M. Chart Used: 14926\_8.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
f00502/3001dp_non_echosounder/2006-290/10172006	1/1	0.00	000.0	Primary
ChicagoAwois	AWOIS # 1967	47.18	038.6	Secondary

## **Hydrographer Recommendations**

Hydrographer recommends relocating currently charted item to new location.

### S-57 Data

Geo object 1: Wreck (WRECKS)

Attributes: CATWRK - 2:dangerous wreck

QUASOU - 2:depth unknown

SORDAT - 20061020

SORIND - US,US,survy,F00502

VERDAT - 12:Mean lower low water

WATLEV - 5:awash

## **Office Notes**

Do not concur. Remove charted 1 ft. Obstn. Chart visible wreck at that location.

## 1.46) AWOIS 13027 - 6136/1

### **Primary Feature for AWOIS Item #13027**

Search Position:41° 56' 37.2" N, 087° 37' 10.2" WHistorical Depth:[None]Search Radius:150Search Technique:S2,MB,ES,DITechnique Notes:[None]

#### **History Notes:**

LNM 08/02-- A 38 FT WHITE HULL SEARAY SUNK DUE TO STRIKING AN UNKNOWN OBJECT IN POSITION LAT. 41/56.62N, LONG. 087/37.17W, 3/4 MILE EAST OF DIVERSITY HARBOR. OBSTRUCTION WAS ADD TO CHART AND LABELED: OBSTN PA "(REP 2002)". (ENTERED 3/05 CEH)

#### **Survey Summary**

Survey Position:	41° 56' 36.1" N, 087° 37' 12.5" W
Least Depth:	5.39 m (= 17.69 ft = 2.948 fm = 2 fm 5.69 ft)
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-249.17:24:57.278 (09/06/2006)
Survey Line:	f00502 / 3001sb / 2006-249 / 035_1718
Profile/Beam:	6136/1
Charts Affected:	14926_5, 14928_1, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

This charted submerged obstruction (AWOIS 13027) was seen on both 100% and 200% SSS records. The shadows in both 100% and 200% SSS records measured to be less than 1m. SB investigation was conducted in star shaped pattern. Contact of approximately 1 meter was seen on SB record.

#### **Feature Correlation**

Address	Feature	Range	Azimuth	Status
f00502/3001sb/2006-249/035_1718	6136/1	0.00	000.0	Primary
f00502/3001sss500k/2006-229/ch060817113200	0001	1.60	279.8	Secondary
f00502/3001sss500k/2006-229/ch060817112600	0001	8.21	165.9	Secondary
ChicagoAwois	AWOIS # 13027	64.17	236.7	Secondary

## **Hydrographer Recommendations**

Hydrographer recommends moving Obstn to position 41.94335013, -087.62014830 and charting current surveyed soundings. Hydrographer also recommends removing PA (Rep 2002) notations from chart.

#### **Cartographically-Rounded Depth (Affected Charts):**

17ft (14926\_5, 14928\_1, 14926\_31, 14927\_1, 14905\_1)

3fm (14500\_1)

17ft (14901\_1)

#### S-57 Data

Geo object 1:	Obstruction (OBSTRN)
Attributes:	QUASOU - 6:least depth known
	SORDAT - 20061020
	SORIND - US,US,nsurf,F00502
	TECSOU - 1,2:found by echo-sounder,found by side scan sonar
	VALSOU - 5.392 m
	VERDAT - 12:Mean lower low water
	WATLEV - 3:always under water/submerged

## **Office Notes**

Concur. Update OBSTRN position. Update OBSTRN least depth to 17 ft. Remove PA and (Rep 2002) text.

# F00502 Charted Items

<b>Registry Number:</b>	F00502
State:	Illinois
Locality:	Lake Michigan
Sub-locality:	South West Coast of Lake Michigan including Chicago
Project Number:	OPR-Y387-NRT4-05
Survey Dates:	08/24/2006 - 02/05/2008

# **Charts Affected**

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
14926	11th	05/01/2006	1:10,000 (14926_18)	USCG LNM: None (02/26/2008) CHS NTM: None (01/25/2008) NGA NTM: None (03/01/2008)
14926	11th	05/01/2006	1:10,000 (14926_2)	USCG LNM: 11/22/1994 (02/26/2008) CHS NTM: None (01/25/2008) NGA NTM: None (03/01/2008)
14926	11th	05/01/2006	1:10,000 (14926_10)	USCG LNM: 08/20/2002 (02/26/2008) CHS NTM: None (01/25/2008) NGA NTM: None (03/01/2008)
14926	11th	05/01/2006	1:10,000 (14926_9)	USCG LNM: 06/03/2003 (02/26/2008) CHS NTM: None (01/25/2008) NGA NTM: None (03/01/2008)
14926	11th	05/01/2006	1:10,000 (14926_25)	USCG LNM: 05/28/2002 (02/26/2008) CHS NTM: None (01/25/2008) NGA NTM: 07/16/1994 (03/01/2008)
14926	11th	05/01/2006	1:10,000 (14926_3)	USCG LNM: 05/11/1993 (02/26/2008) CHS NTM: None (01/25/2008) NGA NTM: None (03/01/2008)
14926	11th	05/01/2006	1:10,000 (14926_1)	USCG LNM: 04/14/1998 (02/26/2008) CHS NTM: None (01/25/2008) NGA NTM: 09/09/2006 (03/01/2008)
14926	11th	05/01/2006	1:10,000 (14926_7)	USCG LNM: 03/16/2004 (02/26/2008) CHS NTM: None (01/25/2008) NGA NTM: None (03/01/2008)
14926	11th	05/01/2006	1:10,000 (14926_27)	USCG LNM: 01/31/2006 (02/26/2008) CHS NTM: None (01/25/2008) NGA NTM: 03/20/1999 (03/01/2008)
14926	11th	05/01/2006	1:10,000 (14926_5) 1:10,000 (14926_4)	USCG LNM: 01/03/2006 (02/26/2008) CHS NTM: None (01/25/2008) NGA NTM: None (03/01/2008)
14905	31st	01/01/2007	1:15,000 (14905_4)	USCG LNM: None (02/26/2008) CHS NTM: None (01/25/2008) NGA NTM: None (03/01/2008)
14927	25th	08/01/2006	1:15,000 (14927_2)	USCG LNM: None (02/26/2008) CHS NTM: None (01/25/2008) NGA NTM: None (03/01/2008)
14926	11th	05/01/2006	1:15,000 (14926_6)	USCG LNM: 12/06/2005 (02/26/2008) CHS NTM: None (01/25/2008) NGA NTM: 02/14/2004 (03/01/2008)
14926	11th	05/01/2006	1:15,000 (14926_13)	USCG LNM: 06/18/2002 (02/26/2008) CHS NTM: None (01/25/2008) NGA NTM: None (03/01/2008)

14926	11th	05/01/2006	1:15,000 (14926_15)	USCG LNM: 06/13/2006 (02/26/2008) CHS NTM: None (01/25/2008) NGA NTM: 01/23/1999 (03/01/2008)
14926	11th	05/01/2006	1:15,000 (14926_14)	USCG LNM: 04/27/1993 (02/26/2008) CHS NTM: None (01/25/2008) NGA NTM: None (03/01/2008)
14929	24th	02/01/2003	1:15,000 (14929_1)	USCG LNM: 03/06/2007 (02/26/2008) CHS NTM: None (01/25/2008) NGA NTM: 03/20/1999 (03/01/2008)
14928	22nd	04/01/2005	1:15,000 (14928_1)	USCG LNM: 05/20/2008 (05/20/2008) CHS NTM: None (04/25/2008) NGA NTM: 02/14/2004 (05/24/2008)
14926	11th	05/01/2006	1:20,000 (14926_11)	USCG LNM: 08/29/2006 (02/26/2008) CHS NTM: None (01/25/2008) NGA NTM: None (03/01/2008)
14926	11th	05/01/2006	1:20,000 (14926_12)	USCG LNM: 03/06/2007 (02/26/2008) CHS NTM: None (01/25/2008) NGA NTM: 02/27/1999 (03/01/2008)
14927	25th	08/01/2006	1:60,000 (14927_1)	USCG LNM: 05/20/2008 (05/20/2008) CHS NTM: None (04/25/2008) NGA NTM: 09/09/2006 (05/24/2008)
14926	11th	05/01/2006	1:60,000 (14926_32)	USCG LNM: 07/24/2007 (05/20/2008) CHS NTM: None (04/25/2008) NGA NTM: 11/28/1998 (05/24/2008)
14926	11th	05/01/2006	1:60,000 (14926_31)	USCG LNM: 05/20/2008 (05/20/2008) CHS NTM: None (04/25/2008) NGA NTM: 09/09/2006 (05/24/2008)
14905	31st	01/01/2007	1:120,000 (14905_1)	USCG LNM: 10/23/2007 (02/26/2008) CHS NTM: None (01/25/2008) NGA NTM: 09/09/2006 (03/01/2008)
14901	14th	10/01/2002	1:500,000 (14901_1)	[L]NTM: ?
14500	27th	10/01/2002	1:1,500,000 (14500_1)	[L]NTM: ?

\* Correction(s) - source: last correction applied (last correction reviewed--"cleared date")

## Features

No.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	Pipeline- 0003	SSS	[None]	42° 03' 46.6" N	087° 39' 22.7" W	
1.2	Pipeline- 0001	SSS	[None]	42° 03' 54.5" N	087° 39' 18.5" W	
1.3	Pipeline- 0002	SSS	[None]	42° 03' 49.8" N	087° 39' 23.4" W	
1.4	Pipeline- 0001	SSS	[None]	41° 37' 55.2" N	087° 12' 10.3" W	
1.5	Crib- 1GP	GP	[None]	41° 53' 42.2" N	087° 35' 27.5" W	

1.6	Pile- 2GP	GP	[None]	41° 54' 11.0" N	087° 36' 33.1" W	
1.7	Pile- 3GP	GP	[None]	41° 54' 11.5" N	087° 36' 27.2" W	
1.8	Pile- 4GP	GP	[None]	41° 54' 11.7" N	087° 36' 26.1" W	
1.9	Pile- 5GP	GP	[None]	41° 54' 11.0" N	087° 36' 26.2" W	
1.10	buoy- 6GP	GP	[None]	41° 51' 07.2" N	087° 36' 30.3" W	
1.11	buoy- 7GP	GP	[None]	41° 51' 07.2" N	087° 36' 22.4" W	
1.12	buoy- 8GP	GP	[None]	41° 51' 02.3" N	087° 36' 30.7" W	
1.13	buoy- 9GP	GP	[None]	41° 51' 02.4" N	087° 36' 21.5" W	
1.14	OBSTRN- 10GP	GP	[None]	41° 47' 54.5" N	087° 34' 47.3" W	
1.15	OBSTRN- 12GP	GP	[None]	41° 47' 51.3" N	087° 34' 43.6" W	
1.16	OBSTRN- 13GP	GP	[None]	41° 47' 50.6" N	087° 34' 42.6" W	
1.17	OBSTRN- 14GP	GP	[None]	41° 47' 50.1" N	087° 34' 41.7" W	
1.18	Ramp- 15GP	GP	[None]	41° 45' 14.5" N	087° 32' 41.1" W	
1.19	pier- 16GP	GP	[None]	41° 45' 54.1" N	087° 33' 34.5" W	
1.20	pier- 17GP	GP	[None]	41° 45' 53.7" N	087° 33' 32.3" W	
1.21	pier- 18GP	GP	[None]	41° 45' 52.4" N	087° 33' 33.0" W	
1.22	pier- 19GP	GP	[None]	41° 45' 50.1" N	087° 33' 24.4" W	
1.23	Mooringbuoy- 20GP	GP	[None]	41° 44' 14.3" N	087° 31' 40.3" W	
1.24	Mooringbuoy- 21GP	GP	[None]	41° 44' 15.4" N	087° 31' 38.2" W	
1.25	dolphin- 22GP	GP	[None]	41° 43' 56.0" N	087° 31' 44.4" W	
1.26	dolphin- 23GP	GP	[None]	41° 43' 55.7" N	087° 31' 43.1" W	
1.27	Crib- 24GP	GP	[None]	41° 42' 32.6" N	087° 31' 25.6" W	
1.28	bkw- 25GP	GP	[None]	41° 41' 56.4" N	087° 30' 29.7" W	
1.29	bkw- 26GP	GP	[None]	41° 41' 53.0" N	087° 30' 19.0" W	
1.30	bkw- 27GP	GP	[None]	41° 41' 44.7" N	087° 30' 10.9" W	
1.31	bkw- 28GP	GP	[None]	41° 41' 55.0" N	087° 30' 34.6" W	
1.32	ruins- 29GP	GP	[None]	41° 41' 33.5" N	087° 30' 12.8" W	
1.33	pile- 30GP	GP	[None]	41° 41' 22.5" N	087° 30' 00.7" W	
1.34	pile- 31GP	GP	[None]	41° 41' 21.5" N	087° 30' 00.9" W	
1.35	pile- 32GP	GP	[None]	41° 41' 22.3" N	087° 30' 01.0" W	
1.36	pile- 33GP	GP	[None]	41° 41' 23.1" N	087° 30' 01.1" W	
1.37	dolphins- 34GP	GP	[None]	41° 40' 45.7" N	087° 28' 53.3" W	
1.38	dolphin- 35GP	GP	[None]	41° 40' 46.3" N	087° 28' 52.8" W	
1.39	OBSTRN- 36GP	GP	[None]	41° 40' 44.1" N	087° 28' 51.6" W	
1.40	OBSTRN- 37GP	GP	[None]	41° 40' 44.9" N	087° 28' 51.0" W	
1.41	privmarker- 38GP	GP	[None]	41° 40' 51.4" N	087° 28' 22.7" W	

1.42         pier-39GP         GP         [None]         41° 38° 37.8° N         087° 24° 35.3° W            1.43         pier-40GP         GP         [None]         41° 38° 35.3° N         087° 24° 30.7° W            1.44         pier-41GP         GP         [None]         41° 38° 30.3° N         087° 24° 30.7° W            1.45         buoy-42GP         GP         [None]         41° 38° 30.3° N         087° 07° 30.0° W            1.46         buoy-43GP         GP         [None]         41° 38° 53.4° N         087° 07° 30.0° W            1.47         buoy-45GP         GP         [None]         41° 38° 53.4° N         087° 07° 19.6° W            1.49         buoy-45GP         GP         [None]         41° 38° 50.1° N         087° 07° 19.6° W            1.50         buoy-45GP         GP         [None]         41° 38° 51.4° N         087° 071.6° M            1.51         pile-36GP         GP         [None]         41° 34° 11.4° N         087° 40° 43.3° W            1.53         pier-51GP         GP         [None]         42° 04° 06.0° N         087° 40° 32.5° W            1.54							
1.44         pier-41GP         GP         [None]         41° 38' 30.3" N         087° 24' 21.6" W            1.45         buoy-42GP         GP         [None]         41° 37' 27.5" N         087° 19' 27.0" W            1.46         buoy-43GP         GP         [None]         41° 38' 49.8" N         087° 07' 39.0" W            1.47         buoy-44GP         GP         [None]         41° 38' 53.4" N         087° 07' 33.7" W            1.48         buoy-46GP         GP         [None]         41° 38' 53.4" N         087° 07' 21.1" W            1.49         buoy-46GP         GP         [None]         41° 38' 53.4" N         087° 07' 16.8" W            1.50         buoy-47GP         GP         [None]         41° 54' 11.4" N         087° 36' 33.5" W            1.51         pile-59GP         GP         [None]         42° 04' 10.6" N         087° 40' 33.8" W            1.54         pier-51GP         GP         [None]         42° 04' 06.0" N         087° 40' 33.7" W            1.55         pier-52GP         GP         [None]         42° 04' 06.0" N         087° 40' 33.7" W            1.55	1.42	pier- 39GP	GP	[None]	41° 38' 37.8" N	087° 24' 35.3" W	
1.45         buoy-42GP         GP         [None]         41° 37' 27.5" N         087° 19' 27.0" W            1.46         buoy-43GP         GP         [None]         41° 38' 49.8" N         087° 07' 39.0" W            1.47         buoy-44GP         GP         [None]         41° 38' 53.4" N         087° 07' 33.7" W            1.48         buoy-46GP         GP         [None]         41° 38' 53.4" N         087° 07' 27.1" W            1.49         buoy-46GP         GP         [None]         41° 38' 53.4" N         087° 07' 19.6" W            1.50         buoy-47GP         GP         [None]         41° 38' 50.1" N         087° 07' 16.8" W            1.51         pile-48GP         GP         [None]         41° 54' 11.4" N         087° 36' 33.5" W            1.52         pile-50GP         GP         [None]         42° 04' 10.6" N         087° 40' 33.8" W            1.54         pier-51GP         GP         [None]         42° 04' 06.0" N         087° 40' 33.2" W            1.55         pier-53GP         GP         [None]         42° 01' 55.8" N         087° 40' 32.5" W            1.56	1.43	pier- 40GP	GP	[None]	41° 38' 35.3" N	087° 24' 30.7" W	
1.46         buoy- 43GP         GP         [Noc]         41° 38' 49.8" N         087° 07' 39.0" W            1.47         buoy- 44GP         GP         [Noc]         41° 38' 53.4" N         087° 07' 33.7" W            1.48         buoy- 45GP         GP         [Noc]         41° 38' 53.4" N         087° 07' 27.1" W            1.49         buoy- 46GP         GP         [Noc]         41° 38' 53.4" N         087° 07' 16.8" W            1.50         buoy- 47GP         GP         [Noc]         41° 38' 50.1" N         087° 36' 33.6" W            1.51         pile-59GP         GP         [Noc]         41° 54' 10.6" N         087° 36' 33.5" W            1.52         pile-59GP         GP         [Noc]         42° 04' 13.4" N         087° 40' 43.3" W            1.53         pier-51GP         GP         [Noc]         42° 04' 08.2" N         087° 40' 37.7" W            1.55         pier-53GP         GP         [Noc]         42° 02' 21.2" N         087° 40' 32.5" W            1.56         pier-54GP         GP         [Noc]         42° 02' 15.6" N         087° 40' 03.1" W            1.57	1.44	pier- 41GP	GP	[None]	41° 38' 30.3" N	087° 24' 21.6" W	
1.47         buoy- 44GP         GP         [None]         41° 38° 53.4" N         087° 07' 33.7" W            1.48         buoy- 45GP         GP         [None]         41° 38° 53.4" N         087° 07' 27.1" W            1.49         buoy- 46GP         GP         [None]         41° 38° 53.4" N         087° 07' 19.6" W            1.50         buoy- 47GP         GP         [None]         41° 38° 50.1" N         087° 07' 16.8" W            1.51         pile-59GP         GP         [None]         41° 54' 10.6" N         087° 36' 33.5" W            1.52         pile-59GP         GP         [None]         42° 04' 13.4" N         087° 40' 43.3" W            1.53         pier-51GP         GP         [None]         42° 04' 06.0" N         087° 40' 33.3" W            1.55         pier-52GP         GP         [None]         42° 04' 08.2" N         087° 40' 31.4" W            1.56         pier-53GP         GP         [None]         42° 04' 60." N         087° 40' 32.5" W            1.57         pier-54GP         GP         [None]         42° 02' 1.2" N         087° 40' 08.1" W            1.59	1.45	buoy- 42GP	GP	[None]	41° 37' 27.5" N	087° 19' 27.0" W	
1.48         buoy- 45GP         GP         [None]         41° 38° 54.6" N         087° 07' 27.1" W            1.49         buoy- 46GP         GP         [None]         41° 38° 53.4" N         087° 07' 19.6" W            1.50         buoy- 47GP         GP         [None]         41° 38° 50.1" N         087° 07' 16.8" W            1.51         pile-48GP         GP         [None]         41° 54' 11.4" N         087° 36' 33.5" W            1.52         pile-59GP         GP         [None]         41° 54' 10.6" N         087° 40' 43.3" W            1.53         pier-51GP         GP         [None]         42° 04' 10.6" N         087° 40' 43.4" W            1.54         pier-51GP         GP         [None]         42° 04' 0.6." N         087° 40' 33.4" W            1.55         pier-53GP         GP         [None]         42° 03' 58.5" N         087° 40' 32.5" W            1.56         pier-54GP         GP         [None]         42° 02' 11.6" N         087° 40' 08.1" W            1.57         pier-56GP         GP         [None]         42° 02' 01.1" N         087° 40' 0.4." W            1.56	1.46	buoy- 43GP	GP	[None]	41° 38' 49.8" N	087° 07' 39.0" W	
1.49         buoy-46GP         GP         [None]         41° 38' 53.4" N         087° 07' 19.6" W            1.50         buoy-47GP         GP         [None]         41° 38' 50.1" N         087° 07' 16.8" W            1.51         pile-48GP         GP         [None]         41° 54' 11.4" N         087° 36' 33.5" W            1.52         pile-59GP         GP         [None]         41° 54' 10.6" N         087° 40' 43.3" W            1.53         pier-51GP         GP         [None]         42° 04' 10.6" N         087° 40' 43.3" W            1.54         pier-51GP         GP         [None]         42° 04' 10.6" N         087° 40' 39.8" W            1.55         pier-53GP         GP         [None]         42° 04' 06.0" N         087° 40' 32.5" W            1.56         pier-53GP         GP         [None]         42° 02' 21.2" N         087° 40' 08.1" W            1.57         pier-54GP         GP         [None]         42° 02' 01.7" N         087° 40' 08.1" W            1.58         foularea-56GP         GP         [None]         42° 02' 01.1" N         087° 40' 08.2" W            1.60	1.47	buoy- 44GP	GP	[None]	41° 38' 53.4" N	087° 07' 33.7" W	
1.50         buoy- 47GP         GP         [None]         41° 38' 50.1" N         087° 07' 16.8" W            1.51         pile-48GP         GP         [None]         41° 54' 11.4" N         087° 36' 33.6" W            1.52         pile-59GP         GP         [None]         41° 54' 10.6" N         087° 36' 33.5" W            1.53         pier-50GP         GP         [None]         42° 04' 13.4" N         087° 40' 43.3" W            1.54         pier-51GP         GP         [None]         42° 04' 10.6" N         087° 40' 33.8" W            1.55         pier-52GP         GP         [None]         42° 04' 06.0" N         087° 40' 32.5" W            1.56         pier-53GP         GP         [None]         42° 02' 21.2" N         087° 40' 08.1" W            1.57         pier-54GP         GP         [None]         42° 02' 01.7" N         087° 40' 08.2" W            1.58         foularea-56GP         GP         [None]         42° 02' 01.1" N         087° 40' 08.2" W            1.60         pile-57GP         GP         [None]         42° 01' 01.7" N         087° 40' 07.2" W            1.61 <td>1.48</td> <td>buoy- 45GP</td> <td>GP</td> <td>[None]</td> <td>41° 38' 54.6" N</td> <td>087° 07' 27.1" W</td> <td></td>	1.48	buoy- 45GP	GP	[None]	41° 38' 54.6" N	087° 07' 27.1" W	
1.51         pile-48GP         GP         [None]         41° 54′ 11.4″ N         087° 36′ 33.6″ W            1.52         pile-59GP         GP         [None]         41° 54′ 10.6″ N         087° 36′ 33.5″ W            1.53         pier-50GP         GP         [None]         42° 04′ 13.4″ N         087° 40′ 43.3″ W            1.54         pier-51GP         GP         [None]         42° 04′ 10.6″ N         087° 40′ 41.4″ W            1.55         pier-51GP         GP         [None]         42° 04′ 08.2″ N         087° 40′ 39.8″ W            1.56         pier-53GP         GP         [None]         42° 02′ 16.6″ N         087° 40′ 32.5″ W            1.57         pier-54GP         GP         [None]         42° 02′ 21.2″ N         087° 40′ 08.1″ W            1.58         foularea-56GP         GP         [None]         42° 02′ 01.1″ N         087° 40′ 08.2″ W            1.60         pile-57GP         GP         [None]         42° 01′ 5.6″ N         087° 40′ 08.2″ W            1.61         pile-58GP         GP         [None]         42° 01′ 5.7″ N         087° 40′ 06.3″ W            1.62	1.49	buoy- 46GP	GP	[None]	41° 38' 53.4" N	087° 07' 19.6" W	
1.52         pile-59GP         GP         [None]         41° 54′ 10.6″ N         087° 36′ 33.5″ W            1.53         pier-50GP         GP         [None]         42° 04′ 13.4″ N         087° 40′ 43.3″ W            1.54         pier-51GP         GP         [None]         42° 04′ 10.6″ N         087° 40′ 43.3″ W            1.55         pier-51GP         GP         [None]         42° 04′ 08.2″ N         087° 40′ 39.8″ W            1.56         pier-53GP         GP         [None]         42° 04′ 06.0″ N         087° 40′ 32.5″ W            1.57         pier-54GP         GP         [None]         42° 02′ 01.6″ N         087° 40′ 03.1″ W            1.58         foularea-56GP         GP         [None]         42° 02′ 01.1″ N         087° 40′ 08.1″ W            1.60         pile-57GP         GP         [None]         42° 02′ 01.1″ N         087° 40′ 08.2″ W            1.61         pile-58GP         GP         [None]         42° 01′ 57.8″ N         087° 40′ 05.2″ W            1.62         pile-60GP         GP         [None]         42° 01′ 57.8″ N         087° 40′ 05.3″ W            1.64	1.50	buoy- 47GP	GP	[None]	41° 38' 50.1" N	087° 07' 16.8" W	
1.53         pier- 50GP         GP         [None]         42° 04' 13.4" N         087° 40' 43.3" W            1.54         pier- 51GP         GP         [None]         42° 04' 10.6" N         087° 40' 41.4" W            1.55         pier- 52GP         GP         [None]         42° 04' 08.2" N         087° 40' 39.8" W            1.56         pier- 53GP         GP         [None]         42° 04' 06.0" N         087° 40' 32.5" W            1.57         pier- 54GP         GP         [None]         42° 02' 21.2" N         087° 40' 08.1" W            1.58         foularea- 55GP         GP         [None]         42° 02' 21.2" N         087° 40' 08.1" W            1.59         foularea- 56GP         GP         [None]         42° 02' 01.6" N         087° 40' 08.2" W            1.60         pile- 57GP         GP         [None]         42° 02' 01.1" N         087° 40' 07.2" W            1.61         pile- 58GP         GP         [None]         42° 01' 55.7" N         087° 40' 06.3" W            1.62         pile- 60GP         GP         [None]         42° 01' 42.7" N         087° 40' 05.3" W	1.51	pile- 48GP	GP	[None]	41° 54' 11.4" N	087° 36' 33.6" W	
1.54         pier- 51GP         GP         [None]         42° 04' 10.6" N         087° 40' 41.4" W            1.55         pier- 52GP         GP         [None]         42° 04' 08.2" N         087° 40' 39.8" W            1.56         pier- 53GP         GP         [None]         42° 04' 06.0" N         087° 40' 37.7" W            1.57         pier- 54GP         GP         [None]         42° 02' 01' 06.0" N         087° 40' 32.5" W            1.58         foularea- 55GP         GP         [None]         42° 02' 21.2" N         087° 40' 08.1" W            1.59         foularea- 56GP         GP         [None]         42° 02' 01.1" N         087° 40' 08.2" W            1.60         pile- 57GP         GP         [None]         42° 02' 01.1" N         087° 40' 07.4" W            1.61         pile- 58GP         GP         [None]         42° 01' 57.8" N         087° 40' 06.9" W            1.62         pile- 60GP         GP         [None]         42° 01' 42.7" N         087° 40' 05.3" W            1.63         pile- 61GP         GP         [None]         42° 01' 41.1" N         087° 40' 05.3" W	1.52	pile- 59GP	GP	[None]	41° 54' 10.6" N	087° 36' 33.5" W	
1.55         pier-52GP         GP         [None]         42° 04' 08.2" N         087° 40' 39.8" W            1.56         pier-53GP         GP         [None]         42° 04' 06.0" N         087° 40' 39.8" W            1.57         pier-54GP         GP         [None]         42° 03' 58.5" N         087° 40' 32.5" W            1.58         foularea-55GP         GP         [None]         42° 02' 11.2" N         087° 40' 08.1" W            1.59         foularea-56GP         GP         [None]         42° 02' 01.1" N         087° 40' 08.2" W            1.60         pile-57GP         GP         [None]         42° 02' 01.1" N         087° 40' 08.2" W            1.61         pile-58GP         GP         [None]         42° 02' 01.1" N         087° 40' 08.2" W            1.62         pile-59GP         GP         [None]         42° 01' 57.8" N         087° 40' 08.2" W            1.63         pile-60GP         GP         [None]         42° 01' 57.8" N         087° 40' 06.3" W            1.64         pile-61GP         GP         [None]         42° 01' 47.7" N         087° 40' 05.3" W            1.65<	1.53	pier- 50GP	GP	[None]	42° 04' 13.4" N	087° 40' 43.3" W	
1.56         pier-53GP         GP         [None]         42° 04' 06.0" N         087° 40' 37.7" W            1.57         pier-54GP         GP         [None]         42° 03' 58.5" N         087° 40' 32.5" W            1.58         foularea-55GP         GP         [None]         42° 02' 21.2" N         087° 40' 08.1" W            1.59         foularea-56GP         GP         [None]         42° 02' 01.6" N         087° 40' 08.2" W            1.60         pile-57GP         GP         [None]         42° 02' 01.1" N         087° 40' 08.2" W            1.61         pile-58GP         GP         [None]         42° 02' 01.1" N         087° 40' 07.2" W            1.62         pile-59GP         GP         [None]         42° 01' 55.7" N         087° 40' 06.3" W            1.63         pile-60GP         GP         [None]         42° 01' 55.7" N         087° 40' 05.3" W            1.65         pile-61GP         GP         [None]         42° 01' 42.7" N         087° 40' 05.3" W            1.66         pile-63GP         GP         [None]         42° 01' 33.0" N         087° 39' 57.3" W            1.66<	1.54	pier- 51GP	GP	[None]	42° 04' 10.6" N	087° 40' 41.4" W	
1.57         pier- 54GP         GP         [None]         42° 03' 58.5" N         087° 40' 32.5" W            1.58         foularea- 55GP         GP         [None]         42° 02' 21.2" N         087° 40' 08.1" W            1.59         foularea- 56GP         GP         [None]         42° 02' 21.2" N         087° 40' 08.1" W            1.60         pile- 57GP         GP         [None]         42° 02' 01.6" N         087° 40' 08.2" W            1.61         pile- 58GP         GP         [None]         42° 02' 01.1" N         087° 40' 08.2" W            1.62         pile- 59GP         GP         [None]         42° 01' 59.6" N         087° 40' 07.2" W            1.63         pile- 60GP         GP         [None]         42° 01' 57.8" N         087° 40' 06.3" W            1.64         pile- 61GP         GP         [None]         42° 01' 42.7" N         087° 40' 05.3" W            1.65         pile- 63GP         GP         [None]         42° 01' 41.7" N         087° 40' 05.3" W            1.66         pile- 63GP         GP         [None]         42° 01' 33.0" N         087° 39' 57.3" W	1.55	pier- 52GP	GP	[None]	42° 04' 08.2" N	087° 40' 39.8" W	
1.58         foularea- 55GP         GP         [None]         42° 02' 21.2" N         087° 40' 08.1" W            1.59         foularea- 56GP         GP         [None]         42° 02' 16.6" N         087° 40' 08.1" W            1.60         pile- 57GP         GP         [None]         42° 02' 01.6" N         087° 40' 08.1" W            1.61         pile- 57GP         GP         [None]         42° 02' 01.1" N         087° 40' 07.4" W            1.62         pile- 58GP         GP         [None]         42° 01' 59.6" N         087° 40' 08.2" W            1.63         pile- 59GP         GP         [None]         42° 01' 57.8" N         087° 40' 06.9" W            1.63         pile- 61GP         GP         [None]         42° 01' 57.8" N         087° 40' 06.3" W            1.64         pile- 61GP         GP         [None]         42° 01' 42.7" N         087° 40' 05.3" W            1.65         pile- 63GP         GP         [None]         42° 01' 42.7" N         087° 40' 05.3" W            1.66         pile- 63GP         GP         [None]         42° 01' 42.7" N         087° 40' 05.3" W	1.56	pier- 53GP	GP	[None]	42° 04' 06.0" N	087° 40' 37.7" W	
1.59         foularea- 56GP         GP         [None]         42° 02' 16.6" N         087° 40' 08.6" W            1.60         pile- 57GP         GP         [None]         42° 02' 01.7" N         087° 40' 07.4" W            1.61         pile- 58GP         GP         [None]         42° 02' 01.7" N         087° 40' 07.4" W            1.62         pile- 59GP         GP         [None]         42° 01' 59.6" N         087° 40' 07.2" W            1.63         pile- 60GP         GP         [None]         42° 01' 57.8" N         087° 40' 06.9" W            1.63         pile- 61GP         GP         [None]         42° 01' 57.8" N         087° 40' 06.3" W            1.64         pile- 61GP         GP         [None]         42° 01' 44.7" N         087° 40' 05.7" W            1.65         pile- 63GP         GP         [None]         42° 01' 44.7" N         087° 40' 05.7" W            1.66         pile- 64GP         GP         [None]         42° 01' 43.7" N         087° 40' 04.5" W            1.67         pile- 64GP         GP         [None]         42° 01' 33.0" N         087° 39' 57.3" W <td< td=""><td>1.57</td><td>pier- 54GP</td><td>GP</td><td>[None]</td><td>42° 03' 58.5" N</td><td>087° 40' 32.5" W</td><td></td></td<>	1.57	pier- 54GP	GP	[None]	42° 03' 58.5" N	087° 40' 32.5" W	
1.60         pile- 57GP         GP         [None]         42° 02' 01.7" N         087° 40' 07.4" W            1.61         pile- 58GP         GP         [None]         42° 02' 01.1" N         087° 40' 07.4" W            1.62         pile- 59GP         GP         [None]         42° 01' 57.8" N         087° 40' 07.2" W            1.63         pile- 60GP         GP         [None]         42° 01' 57.8" N         087° 40' 06.9" W            1.64         pile- 61GP         GP         [None]         42° 01' 57.8" N         087° 40' 06.3" W            1.65         pile- 62GP         GP         [None]         42° 01' 42.7" N         087° 40' 05.3" W            1.66         pile- 63GP         GP         [None]         42° 01' 42.7" N         087° 40' 05.3" W            1.67         pile- 63GP         GP         [None]         42° 01' 42.7" N         087° 40' 05.3" W            1.68         pier- 65GP         GP         [None]         42° 01' 30.5" N         087° 39' 56.1" W            1.69         pier- 66GP         GP         [None]         42° 01' 27.8" N         087° 39' 55.1" W            1.7	1.58	foularea- 55GP	GP	[None]	42° 02' 21.2" N	087° 40' 08.1" W	
1.61         pile- 58GP         GP         [None]         42° 02' 01.1" N         087° 40' 08.2" W            1.62         pile- 59GP         GP         [None]         42° 01' 59.6" N         087° 40' 07.2" W            1.63         pile- 60GP         GP         [None]         42° 01' 57.8" N         087° 40' 06.9" W            1.64         pile- 61GP         GP         [None]         42° 01' 55.7" N         087° 40' 06.3" W            1.65         pile- 62GP         GP         [None]         42° 01' 44.7" N         087° 40' 05.3" W            1.66         pile- 63GP         GP         [None]         42° 01' 41.1" N         087° 40' 05.3" W            1.67         pile- 64GP         GP         [None]         42° 01' 41.1" N         087° 40' 04.5" W            1.68         pier- 65GP         GP         [None]         42° 01' 33.0" N         087° 39' 57.3" W            1.69         pier- 66GP         GP         [None]         42° 01' 27.8" N         087° 39' 55.1" W            1.70         pier- 67GP         GP         [None]         42° 01' 24.9" N         087° 39' 55.1" W            1.7	1.59	foularea- 56GP	GP	[None]	42° 02' 16.6" N	087° 40' 08.6" W	
1.62         pile- 59GP         GP         [None]         42° 01' 59.6" N         087° 40' 07.2" W            1.63         pile- 60GP         GP         [None]         42° 01' 57.8" N         087° 40' 06.9" W            1.64         pile- 61GP         GP         [None]         42° 01' 55.7" N         087° 40' 06.3" W            1.65         pile- 61GP         GP         [None]         42° 01' 42.7" N         087° 40' 05.3" W            1.66         pile- 63GP         GP         [None]         42° 01' 42.7" N         087° 40' 05.3" W            1.66         pile- 63GP         GP         [None]         42° 01' 42.7" N         087° 40' 05.3" W            1.66         pile- 64GP         GP         [None]         42° 01' 42.7" N         087° 40' 05.3" W            1.67         pile- 64GP         GP         [None]         42° 01' 33.0" N         087° 39' 57.3" W            1.68         pier- 65GP         GP         [None]         42° 01' 30.5" N         087° 39' 55.1" W            1.70         pier- 67GP         GP         [None]         42° 01' 24.9" N         087° 39' 53.8" W            1.7	1.60	pile- 57GP	GP	[None]	42° 02' 01.7" N	087° 40' 07.4" W	
1.63         pile- 60GP         GP         [None]         42° 01' 57.8" N         087° 40' 06.9" W            1.64         pile- 61GP         GP         [None]         42° 01' 57.8" N         087° 40' 06.9" W            1.65         pile- 61GP         GP         [None]         42° 01' 55.7" N         087° 40' 06.3" W            1.65         pile- 62GP         GP         [None]         42° 01' 44.7" N         087° 40' 05.7" W            1.66         pile- 63GP         GP         [None]         42° 01' 42.7" N         087° 40' 05.3" W            1.66         pile- 64GP         GP         [None]         42° 01' 41.1" N         087° 40' 04.5" W            1.67         pile- 64GP         GP         [None]         42° 01' 33.0" N         087° 39' 57.3" W            1.68         pier- 65GP         GP         [None]         42° 01' 30.5" N         087° 39' 55.1" W            1.69         pier- 67GP         GP         [None]         42° 01' 27.8" N         087° 39' 55.1" W            1.70         pier- 67GP         GP         [None]         42° 01' 24.9" N         087° 39' 53.8" W            1.7	1.61	pile- 58GP	GP	[None]	42° 02' 01.1" N	087° 40' 08.2" W	
1.64         pile- 61GP         GP         [None]         42° 01' 55.7" N         087° 40' 06.3" W            1.65         pile- 62GP         GP         [None]         42° 01' 44.7" N         087° 40' 05.3" W            1.66         pile- 63GP         GP         [None]         42° 01' 42.7" N         087° 40' 05.3" W            1.66         pile- 63GP         GP         [None]         42° 01' 41.7" N         087° 40' 05.3" W            1.67         pile- 64GP         GP         [None]         42° 01' 41.1" N         087° 40' 04.5" W            1.68         pier- 65GP         GP         [None]         42° 01' 33.0" N         087° 39' 57.3" W            1.69         pier- 66GP         GP         [None]         42° 01' 30.5" N         087° 39' 55.1" W            1.70         pier- 67GP         GP         [None]         42° 01' 22.8" N         087° 39' 55.1" W            1.71         pier- 68GP         GP         [None]         42° 01' 22.2" N         087° 39' 52.6" W            1.72         pier- 70GP         GP         [None]         41° 38' 37.0" N         087° 24' 41.2" W            1.7	1.62	pile- 59GP	GP	[None]	42° 01' 59.6" N	087° 40' 07.2" W	
1.65         pile- 62GP         GP         [None]         42° 01' 44.7" N         087° 40' 05.7" W            1.66         pile- 63GP         GP         [None]         42° 01' 42.7" N         087° 40' 05.3" W            1.67         pile- 64GP         GP         [None]         42° 01' 41.1" N         087° 40' 04.5" W            1.68         pier- 65GP         GP         [None]         42° 01' 33.0" N         087° 39' 57.3" W            1.69         pier- 66GP         GP         [None]         42° 01' 30.5" N         087° 39' 55.1" W            1.70         pier- 67GP         GP         [None]         42° 01' 27.8" N         087° 39' 55.1" W            1.71         pier- 68GP         GP         [None]         42° 01' 22.2" N         087° 39' 52.6" W            1.72         pier- 70GP         GP         [None]         41° 38' 37.0" N         087° 24' 41.2" W            1.73         SLCONS- 71GP         GP         [None]         41° 38' 36.6" N         087° 39' 52.6" W            1.74         pier- 72GP         GP         [None]         41° 38' 36.6" N         087° 39' 41.4" W            1	1.63	pile- 60GP	GP	[None]	42° 01' 57.8" N	087° 40' 06.9" W	
1.66         pile- 63GP         GP         [None]         42° 01' 42.7" N         087° 40' 05.3" W            1.67         pile- 64GP         GP         [None]         42° 01' 41.1" N         087° 40' 04.5" W            1.68         pier- 65GP         GP         [None]         42° 01' 33.0" N         087° 39' 57.3" W            1.69         pier- 66GP         GP         [None]         42° 01' 30.5" N         087° 39' 56.1" W            1.70         pier- 67GP         GP         [None]         42° 01' 27.8" N         087° 39' 55.1" W            1.71         pier- 68GP         GP         [None]         42° 01' 24.9" N         087° 39' 55.1" W            1.71         pier- 70GP         GP         [None]         42° 01' 22.2" N         087° 39' 52.6" W            1.72         pier- 70GP         GP         [None]         41° 38' 37.0" N         087° 24' 41.2" W            1.73         SLCONS- 71GP         GP         [None]         41° 38' 36.6" N         087° 39' 47.4" W            1.74         pier- 73GP         GP         [None]         41° 38' 36.6" N         087° 39' 47.4" W            1	1.64	pile- 61GP	GP	[None]	42° 01' 55.7" N	087° 40' 06.3" W	
1.67         pile- 64GP         GP         [None]         42° 01' 41.1" N         087° 40' 04.5" W            1.68         pier- 65GP         GP         [None]         42° 01' 33.0" N         087° 39' 57.3" W            1.69         pier- 66GP         GP         [None]         42° 01' 30.5" N         087° 39' 56.1" W            1.70         pier- 67GP         GP         [None]         42° 01' 27.8" N         087° 39' 55.1" W            1.71         pier- 68GP         GP         [None]         42° 01' 24.9" N         087° 39' 53.8" W            1.72         pier- 70GP         GP         [None]         42° 01' 22.2" N         087° 39' 52.6" W            1.73         SLCONS- 71GP         GP         [None]         41° 38' 37.0" N         087° 24' 41.2" W            1.74         pier- 72GP         GP         [None]         41° 38' 36.6" N         087° 24' 40.6" W            1.75         pier- 73GP         GP         [None]         42° 01' 06.2" N         087° 39' 47.4" W            1.76         rock- 74GP         Rock         [None]         41° 58' 59.2" N         087° 39' 02.0" W	1.65	pile- 62GP	GP	[None]	42° 01' 44.7" N	087° 40' 05.7" W	
1.68         pier- 65GP         GP         [None]         42° 01' 33.0" N         087° 39' 57.3" W            1.69         pier- 66GP         GP         [None]         42° 01' 30.5" N         087° 39' 56.1" W            1.70         pier- 67GP         GP         [None]         42° 01' 27.8" N         087° 39' 55.1" W            1.71         pier- 68GP         GP         [None]         42° 01' 24.9" N         087° 39' 53.8" W            1.72         pier- 70GP         GP         [None]         42° 01' 22.2" N         087° 39' 53.8" W            1.73         SLCONS- 71GP         GP         [None]         41° 38' 37.0" N         087° 24' 41.2" W            1.74         pier- 72GP         GP         [None]         41° 38' 36.6" N         087° 24' 40.6" W            1.75         pier- 73GP         GP         [None]         41° 38' 36.6" N         087° 39' 47.4" W            1.76         rock- 74GP         Rock         [None]         41° 58' 59.2" N         087° 39' 02.0" W	1.66	pile- 63GP	GP	[None]	42° 01' 42.7" N	087° 40' 05.3" W	
1.69         pier- 66GP         GP         [None]         42° 01' 30.5" N         087° 39' 56.1" W            1.70         pier- 67GP         GP         [None]         42° 01' 27.8" N         087° 39' 55.1" W            1.71         pier- 68GP         GP         [None]         42° 01' 24.9" N         087° 39' 53.8" W            1.71         pier- 68GP         GP         [None]         42° 01' 22.2" N         087° 39' 53.8" W            1.72         pier- 70GP         GP         [None]         42° 01' 22.2" N         087° 39' 52.6" W            1.73         SLCONS- 71GP         GP         [None]         41° 38' 37.0" N         087° 24' 41.2" W            1.74         pier- 72GP         GP         [None]         41° 38' 36.6" N         087° 24' 40.6" W            1.75         pier- 73GP         GP         [None]         41° 38' 36.6" N         087° 39' 47.4" W            1.76         rock- 74GP         Rock         [None]         41° 58' 59.2" N         087° 39' 02.0" W	1.67	pile- 64GP	GP	[None]	42° 01' 41.1" N	087° 40' 04.5" W	
1.70         pier- 67GP         GP         [None]         42° 01' 27.8" N         087° 39' 55.1" W            1.71         pier- 68GP         GP         [None]         42° 01' 24.9" N         087° 39' 53.8" W            1.72         pier- 70GP         GP         [None]         42° 01' 22.2" N         087° 39' 53.8" W            1.73         SLCONS- 71GP         GP         [None]         41° 38' 37.0" N         087° 24' 41.2" W            1.74         pier- 72GP         GP         [None]         41° 38' 36.6" N         087° 24' 40.6" W            1.75         pier- 73GP         GP         [None]         42° 01' 06.2" N         087° 39' 47.4" W            1.76         rock- 74GP         Rock         [None]         41° 58' 59.2" N         087° 39' 02.0" W	1.68	pier- 65GP	GP	[None]	42° 01' 33.0" N	087° 39' 57.3" W	
1.71         pier- 68GP         GP         [None]         42° 01' 24.9" N         087° 39' 53.8" W            1.72         pier- 70GP         GP         [None]         42° 01' 22.2" N         087° 39' 52.6" W            1.73         SLCONS- 71GP         GP         [None]         41° 38' 37.0" N         087° 24' 41.2" W            1.74         pier- 72GP         GP         [None]         41° 38' 36.6" N         087° 24' 40.6" W            1.75         pier- 73GP         GP         [None]         42° 01' 06.2" N         087° 39' 47.4" W            1.76         rock- 74GP         Rock         [None]         41° 58' 59.2" N         087° 39' 02.0" W	1.69	pier- 66GP	GP	[None]	42° 01' 30.5" N	087° 39' 56.1" W	
1.72         pier- 70GP         GP         [None]         42° 01' 22.2" N         087° 39' 52.6" W            1.73         SLCONS- 71GP         GP         [None]         41° 38' 37.0" N         087° 24' 41.2" W            1.74         pier- 72GP         GP         [None]         41° 38' 36.6" N         087° 24' 40.6" W            1.75         pier- 73GP         GP         [None]         42° 01' 06.2" N         087° 39' 47.4" W            1.76         rock- 74GP         Rock         [None]         41° 58' 59.2" N         087° 39' 02.0" W	1.70	pier- 67GP	GP	[None]	42° 01' 27.8" N	087° 39' 55.1" W	
1.73         SLCONS- 71GP         GP         [None]         41° 38' 37.0" N         087° 24' 41.2" W            1.74         pier- 72GP         GP         [None]         41° 38' 36.6" N         087° 24' 40.6" W            1.75         pier- 73GP         GP         [None]         42° 01' 06.2" N         087° 39' 47.4" W            1.76         rock- 74GP         Rock         [None]         41° 58' 59.2" N         087° 39' 02.0" W	1.71	pier- 68GP	GP	[None]	42° 01' 24.9" N	087° 39' 53.8" W	
1.74         pier- 72GP         GP         [None]         41° 38' 36.6" N         087° 24' 40.6" W            1.75         pier- 73GP         GP         [None]         42° 01' 06.2" N         087° 39' 47.4" W            1.76         rock- 74GP         Rock         [None]         41° 58' 59.2" N         087° 39' 02.0" W	1.72	pier- 70GP	GP	[None]	42° 01' 22.2" N	087° 39' 52.6" W	
1.75         pier- 73GP         GP         [None]         42° 01' 06.2" N         087° 39' 47.4" W            1.76         rock- 74GP         Rock         [None]         41° 58' 59.2" N         087° 39' 02.0" W	1.73	SLCONS- 71GP	GP	[None]	41° 38' 37.0" N	087° 24' 41.2" W	
1.76         rock- 74GP         Rock         [None]         41° 58' 59.2" N         087° 39' 02.0" W	1.74	pier- 72GP	GP	[None]	41° 38' 36.6" N	087° 24' 40.6" W	
	1.75	pier-73GP	GP	[None]	42° 01' 06.2" N	087° 39' 47.4" W	
1.77         Light- 75GP         GP         [None]         41° 58' 06.0" N         087° 38' 33.7" W	1.76	rock- 74GP	Rock	[None]	41° 58' 59.2" N	087° 39' 02.0" W	
	1.77	Light- 75GP	GP	[None]	41° 58' 06.0" N	087° 38' 33.7" W	

1.78	Light- 76GP	GP	[None]	41° 58' 05.6" N	087° 38' 33.0" W	
1.79	Basin/ramp- 77GP	GP	[None]	41° 58' 06.4" N	087° 38' 35.2" W	
1.80	Mooringbuoy- 78GP	GP	[None]	41° 57' 00.2" N	087° 38' 00.1" W	
1.81	Mooringbuoy- 79GP	GP	[None]	41° 56' 48.5" N	087° 37' 53.8" W	
1.82	bkw- 80GP	GP	[None]	41° 55' 56.5" N	087° 37' 48.1" W	
1.83	Hulk- 81GP	GP	[None]	41° 53' 27.2" N	087° 36' 33.0" W	
1.84	Hulk- 82GP	GP	[None]	41° 53' 27.5" N	087° 36' 17.2" W	
1.85	buoy- 84GP	GP	[None]	41° 48' 29.2" N	087° 34' 40.9" W	
1.86	pier- 85GP	GP	[None]	41° 45' 45.3" N	087° 33' 20.7" W	
1.87	SLCONS- 86GP	GP	[None]	42° 01' 02.1" N	087° 39' 45.7" W	
1.88	SLCONS- 87GP	GP	[None]	42° 00' 58.5" N	087° 39' 43.6" W	
1.89	airfield- 88GP	GP	[None]	41° 51' 36.6" N	087° 36' 28.6" W	
1.90	Sounding- 89GP	GP	[None]	41° 39' 10.9" N	087° 07' 55.1" W	
1.91	OBSTRN- 5853/1	Sounding	8.93 m	41° 43' 37.0" N	087° 28' 53.1" W	

1 - DR\_Charted

## 1.1) Pipeline- 0003

### **Survey Summary**

Survey Position:	42° 03' 46.6" N, 087° 39' 22.7" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-236.06:44:32 (08/24/2006)
Survey Line:	f00502 / 3001sss500k / 2006-233 / ch060821120400
Contact/Point:	0003/1
Charts Affected:	14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

pipeline associated with crib. The charted locations of the cribs were found to be incorrect. Therefore, the pipelines, connected to the cribs are also charted incorrectly. The pipelines were not developed with SBES, however they could be see on the SSS record. Area was covered with 200% SSS.

### **Feature Correlation**

Address	Feature	Range	Azimuth	Status
f00502/3001sss500k/2006-233/ch060821120400	0003	0.00	000.0	Primary

## **Hydrographer Recommendations**

Hydrographer recommends updating charted location of pipeline.

## S-57 Data

[None]

### **Office Notes**

## **1.2) Pipeline- 0001**

### **Survey Summary**

Survey Position:	42° 03' 54.5" N, 087° 39' 18.5" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-236.06:43:23 (08/24/2006)
Survey Line:	f00502 / 3001sss500k / 2006-233 / ch060821120400
Contact/Point:	0001/1
Charts Affected:	14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

pipeline associated with crib. The charted locations of the cribs were found to be incorrect. Therefore, the pipelines, connected to the cribs are also charted incorrectly. The pipelines were not developed with SBES, however they could be see on the SSS record. Area was covered with 200% SSS.

### **Feature Correlation**

Address	Feature	Range	Azimuth	Status
f00502/3001sss500k/2006-233/ch060821120400	0001	0.00	000.0	Primary
f00502/3001sss500k/2006-233/ch060821115600	0005	15.41	079.1	Secondary

### **Hydrographer Recommendations**

Hydrographer recommends updating charted location of pipeline.

#### S-57 Data

[None]

### **Office Notes**

## **1.3) Pipeline- 0002**

### **Survey Summary**

Survey Position:	42° 03' 49.8" N, 087° 39' 23.4" W
Least Depth:	[None]
TPU (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-236.06:44:04 (08/24/2006)
Survey Line:	f00502 / 3001sss500k / 2006-233 / ch060821120400
Contact/Point:	0002/1
Charts Affected:	14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

pipeline associated with crib. The charted locations of the cribs were found to be incorrect. Therefore, the pipelines, connected to the cribs are also charted incorrectly. The pipelines were not developed with SBES, however they could be see on the SSS record. Area was covered with 200% SSS.

### **Feature Correlation**

Address	Feature	Range	Azimuth	Status
f00502/3001sss500k/2006-233/ch060821120400	0002	0.00	000.0	Primary
f00502/3001sss500k/2006-233/ch060821115600	0006	24.07	069.1	Secondary (grouped)

### **Hydrographer Recommendations**

Hydrographer recommends updating charted location of pipeline.

S-57 Data

[None]

### **Office Notes**

## 1.4) Pipeline- 0001

### **Survey Summary**

Survey Position:	41° 37' 55.2" N, 087° 12' 10.3" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-304.04:58:43 (10/31/2006)
Survey Line:	f00502 / 3001sss500k / 2006-293 / ch061020125300
Contact/Point:	0001/1
Charts Affected:	14926_32, 14905_1, 14901_1, 14500_1

#### **Remarks:**

This contact was created from a line feature in Caris which traces the pipeline associated with AWOIS 13054. The pipeline was seen on both the 100% and 200% SSS records. Since there is a slight discrepancy in the actual location of the charted crib (AWOIS 13054), the Hydrographer notes that there is also a slight discrepancy in the actual location of the charted pipeline. The pipeline was not further investigated with SB Echosounder.

### **Feature Correlation**

Address	Feature	Range	Azimuth	Status
f00502/3001sss500k/2006-293/ch061020125300	0001	0.00	000.0	Primary
f00502/3001sss500k/2006-293/ch061020125600	0001	24.77	004.4	Secondary

## **Hydrographer Recommendations**

Hydrographer recommends modifying the northern most approximate 150m of this charted pipeline, as per current survey findings, so that it connects the surveyed location of the crib to the southern portion of the charted pipeline.

### S-57 Data

[None]

#### **Office Notes**

## 1.5) Crib-1GP

### **Survey Summary**

Survey Position:	41° 53' 42.2" N, 087° 35' 27.5" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-310.23:00:16 (11/06/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	1
Charts Affected:	14926_6, 14928_1, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Visually inspected - Exposed structure is currently in ruins. Exposed 3m. Chart 14928\_1

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	1	0.00	000.0	Primary

## **Hydrographer Recommendations**

Hydrographer recommends labeling structure as in ruins.

## S-57 Data

- Geo object 1: Obstruction (OBSTRN)
- Attributes: CATOBS 4:crib

CONDTN - 2:ruined

- SORDAT 20061020
- SORIND US,US,survy,F00502
- STATUS 1:permanent

WATLEV - 2:always dry

### **Office Notes**

#### Concur. Chart crib in ruins.

## **1.6) Pile- 2GP**

### **Survey Summary**

Survey Position:	41° 54' 11.0" N, 087° 36' 33.1" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-311.23:46:22 (11/07/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	2
Charts Affected:	14926_6, 14928_1, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Visually inspected - exposed item not seen. Submerged piles where not investigated w/ SSS and their existance was not disproved. Chart 14928\_1.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	2	0.00	000.0	Primary

## **Hydrographer Recommendations**

Hydrographer recommends labeling all piles as submerged.

### S-57 Data

**Geo object 1:** Pile (PILPNT)

Attributes: INFORM - label submerged SORDAT - 20061020 SORIND - US,US,survy,F00502

## **Office Notes**

## 1.7) Pile- 3GP

### **Survey Summary**

Survey Position:	41° 54' 11.5" N, 087° 36' 27.2" W
Least Depth:	[None]
TPU (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-312.00:01:12 (11/08/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	3
Charts Affected:	14926_6, 14928_1, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Visually Inspected - Exposed pile was not seen. Item was not investigated with SSS. Existence was not disproved. Chart 14928\_1.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	3	0.00	000.0	Primary

### **Hydrographer Recommendations**

Hydrographer recommends labeling item as submerged pile.

### S-57 Data

**Geo object 1:** Pile (PILPNT)

Attributes: INFORM - label submerged SORDAT - 20061020 SORIND - US,US,survy,F00502

### **Office Notes**

## **1.8) Pile-4GP**

### **Survey Summary**

Survey Position:	41° 54' 11.7" N, 087° 36' 26.1" W
Least Depth:	[None]
TPU (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-312.00:08:41 (11/08/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	4
Charts Affected:	14926_6, 14928_1, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Visually Inspected - Exposed pile was not seen. Item was not investigated with SSS. Existence was not disproved. Chart 14928\_1.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	4	0.00	000.0	Primary

### **Hydrographer Recommendations**

Hydrographer recommends labeling item as submerged pile.

### S-57 Data

**Geo object 1:** Pile (PILPNT)

Attributes: INFORM - label submerged SORDAT - 20061020 SORIND - US,US,survy,F00502

### **Office Notes**

## 1.9) Pile- 5GP

### **Survey Summary**

Survey Position:	41° 54' 11.0" N, 087° 36' 26.2" W
Least Depth:	[None]
TPU (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-312.00:10:54 (11/08/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	5
Charts Affected:	14926_6, 14928_1, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Visually Inspected - Exposed pile was not seen. Item was not investigated with SSS. Existence was not disproved. Chart 14928\_1.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	5	0.00	000.0	Primary

### **Hydrographer Recommendations**

Hydrographer recommends labeling item as submerged pile.

### S-57 Data

**Geo object 1:** Pile (PILPNT)

Attributes: INFORM - label submerged SORDAT - 20061020 SORIND - US,US,survy,F00502

### **Office Notes**

## 1.10) buoy- 6GP

### **Survey Summary**

Survey Position:	41° 51' 07.2" N, 087° 36' 30.3" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-312.22:38:40 (11/08/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	6
Charts Affected:	14926_7, 14928_1, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Visually inspected. Private aid W Or S "ZB" does not exist. Chart used: 14926\_7.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	6	0.00	000.0	Primary

## **Hydrographer Recommendations**

Hydrographer recommends removing private aid W Or S "ZA" from chart.

## S-57 Data

[None]

## **Office Notes**

## 1.11) buoy- 7GP

### **Survey Summary**

Survey Position:	41° 51' 07.2" N, 087° 36' 22.4" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-312.22:41:24 (11/08/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	7
Charts Affected:	14926_7, 14928_1, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Visually inspected. Private aid W Or S "ZB" does not exist. Chart used: 14926\_7.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	7	0.00	000.0	Primary

## **Hydrographer Recommendations**

Hydrographer recommends removing W Or S "ZA" from the chart.

## S-57 Data

[None]

### **Office Notes**

## 1.12) buoy- 8GP

### **Survey Summary**

Survey Position:	41° 51' 02.3" N, 087° 36' 30.7" W
Least Depth:	[None]
TPU (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-312.22:42:34 (11/08/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	8
Charts Affected:	14926_7, 14928_1, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Visually inspected. Private aid W Or S "ZB" does not exist. Chart used: 14926\_7.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	8	0.00	000.0	Primary

## **Hydrographer Recommendations**

Hydrographer recommends removing private aid W Or S "ZB" from the chart.

## S-57 Data

[None]

### **Office Notes**

## 1.13) buoy- 9GP

### **Survey Summary**

Survey Position:	41° 51' 02.4" N, 087° 36' 21.5" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-312.22:43:43 (11/08/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	9
Charts Affected:	14926_7, 14928_1, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Visually inspected. Private aid W Or S "ZB" does not exist. Chart used: 14926\_7.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	9	0.00	000.0	Primary

## **Hydrographer Recommendations**

Hydrographer recommends removing private aid W Or S "ZB" from the chart.

## S-57 Data

[None]

### **Office Notes**

## 1.14) OBSTRN-10GP

### **Survey Summary**

Survey Position:	41° 47' 54.5" N, 087° 34' 47.3" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-312.22:56:39 (11/08/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	10
Charts Affected:	14926_9, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Visually inspected - charted item not visible. Item was not investigated w/ SSS due to shallow depths. Chart used: 14926\_9.

### **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	10	0.00	000.0	Primary

### **Hydrographer Recommendations**

Because item was not investigated w/ SSS, hydrographer recommends charting item as submerged. Update all charts and ENCs to represent present survey findings.

### S-57 Data

**Geo object 1:** Obstruction (OBSTRN)

Attributes: CATOBS - 1:snag / stump

QUASOU - 2:depth unknown

SORDAT - 20061020

SORIND - US,US,survy,F00502

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

# **Office Notes**

Concur. Chart OBSTRN as submerged.

## 1.15) OBSTRN-12GP

### **Survey Summary**

Survey Position:	41° 47' 51.3" N, 087° 34' 43.6" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-312.23:13:49 (11/08/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	12
Charts Affected:	14926_9, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Visually inspected - charted item not visible. Item was not investigated w/ SSS due to shallow depths. Chart used: 14926\_9.

### **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	12	0.00	000.0	Primary

### **Hydrographer Recommendations**

Because item was not investigated w/ SSS, hydrographer recommends charting item as submerged.

### S-57 Data

- **Geo object 1:** Obstruction (OBSTRN)
- Attributes: CATOBS 1:snag / stump
  - QUASOU 2:depth unknown

SORDAT - 20061020

SORIND - US,US,survy,F00502

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

# **Office Notes**

Concur. Chart OBSTRN as submerged.

# 1.16) OBSTRN- 13GP

#### **Survey Summary**

Survey Position:	41° 47' 50.6" N, 087° 34' 42.6" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-312.23:15:00 (11/08/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	13
Charts Affected:	14926_9, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Visually inspected - charted item not visible. Item was not investigated w/ SSS due to shallow depths. Chart used: 14926\_9.

### **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	13	0.00	000.0	Primary

#### **Hydrographer Recommendations**

Because item was not investigated w/ SSS, hydrographer recommends charting item as submerged.

#### S-57 Data

- **Geo object 1:** Obstruction (OBSTRN)
- Attributes: CATOBS 1:snag / stump
  - QUASOU 2:depth unknown

SORDAT - 20061020

SORIND - US,US,survy,F00502

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

# **Office Notes**

Concur. Chart OBSTRN as submerged.

## 1.17) OBSTRN-14GP

#### **Survey Summary**

Survey Position:	41° 47' 50.1" N, 087° 34' 41.7" W
Least Depth:	[None]
TPU (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-312.23:15:04 (11/08/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	14
Charts Affected:	14926_9, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Visually inspected - charted item not visible. Item was not investigated w/ SSS due to shallow depths. Chart used: 14926\_9.

### **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	14	0.00	000.0	Primary

#### **Hydrographer Recommendations**

Because item was not investigated w/ SSS, hydrographer recommends charting item as submerged.

#### S-57 Data

- **Geo object 1:** Obstruction (OBSTRN)
- Attributes: CATOBS 1:snag / stump
  - QUASOU 2:depth unknown

SORDAT - 20061017

SORIND - US,US,survy,F00502

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

# **Office Notes**

Concur. Chart OBSTRN as submerged.

## 1.18) Ramp- 15GP

### **Survey Summary**

Survey Position:	41° 45' 14.5" N, 087° 32' 41.1" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-312.23:24:15 (11/08/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	15
Charts Affected:	14926_10, 14926_11, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Ramp does not exist. Area filled in w/ rip rap. Chart used: 14926\_10.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	15	0.00	000.0	Primary

## **Hydrographer Recommendations**

Hydrographer recommends removing "Ramp" from chart.

### S-57 Data

- Geo object 1: Shoreline Construction (SLCONS)
- Attributes: CATSLC 12:ramp

INFORM - Remove

SORDAT - 20061020

SORIND - US,US,nsurf,F00502

## **Office Notes**

## 1.19) pier- 16GP

### **Survey Summary**

Survey Position:	41° 45' 54.1" N, 087° 33' 34.5" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-312.23:34:36 (11/08/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	16
Charts Affected:	14926_10, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Area foul w/ piers and piles in ruins from shore to the extent of Chart GPs 16,17, 18. Exposed 1.5m. Chart used: 14926\_10.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	16	0.00	000.0	Primary

## **Hydrographer Recommendations**

Hydrographer recommends updating all charts and ENCs to represent present survey findings.

## S-57 Data

[None]

### **Office Notes**

## 1.20) pier- 17GP

### **Survey Summary**

Survey Position:	41° 45' 53.7" N, 087° 33' 32.3" W
Least Depth:	[None]
TPU (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-312.23:34:42 (11/08/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	17
Charts Affected:	14926_10, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Area foul w/ piers and piles in ruins from shore to the extent of Chart GPs 16,17, 18. Exposed 1.5m. Chart used: 14926\_10.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	17	0.00	000.0	Primary

## **Hydrographer Recommendations**

Hydrographer recommends updating all charts and ENCs to represent present survey findings.

### S-57 Data

[None]

### **Office Notes**

## 1.21) pier- 18GP

### **Survey Summary**

Survey Position:	41° 45' 52.4" N, 087° 33' 33.0" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-312.23:34:47 (11/08/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	18
Charts Affected:	14926_10, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Area foul w/ piers and piles in ruins from shore to the extent of Chart GPs 16,17, 18. Exposed 1.5m. Chart used: 14926\_10.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	18	0.00	000.0	Primary

## **Hydrographer Recommendations**

Hydrographer recommends updating all charts and ENCs to represent present survey findings.

## S-57 Data

[None]

#### **Office Notes**

## 1.22) pier- 19GP

### **Survey Summary**

Survey Position:	41° 45' 50.1" N, 087° 33' 24.4" W
Least Depth:	[None]
TPU (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-312.23:38:04 (11/08/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	19
Charts Affected:	14926_10, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Area foul w/ pier and piles in ruin from shore seaward to the extent of Chart GP 19. Chart used: 14926\_10.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	19	0.00	000.0	Primary

## **Hydrographer Recommendations**

Hydrographer recommends updating all charts and ENCs to represent present survey findings.

## S-57 Data

[None]

#### **Office Notes**

## 1.23) Mooringbuoy- 20GP

### **Survey Summary**

Survey Position:	41° 44' 14.3" N, 087° 31' 40.3" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-312.23:46:08 (11/08/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	20
Charts Affected:	14926_27, 14929_1, 14926_11, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Disproved - Item was visually inspected and was not seen. In addition, area was investigated with 200% SSS during project OPR-Y387-NRT4-05, sheet H11452, and was not seen on the record. Chart used: 14926\_11.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	20	0.00	000.0	Primary

## **Hydrographer Recommendations**

Hydrographer recommends removing item from chart.

#### S-57 Data

[None]

### **Office Notes**

Concur. Remove charted mooring buoy.

## 1.24) Mooringbuoy- 21GP

### **Survey Summary**

Survey Position:	41° 44' 15.4" N, 087° 31' 38.2" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-312.23:46:12 (11/08/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	21
Charts Affected:	14926_27, 14929_1, 14926_11, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Disproved - Item was visually inspected and was not seen. In addition, area was investigated with 200% SSS during project OPR-Y387-NRT4-05, sheet H11452, and was not seen on the record. Chart used: 14926\_11.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	21	0.00	000.0	Primary

## **Hydrographer Recommendations**

Hydrographer recommends removing item from chart.

#### S-57 Data

[None]

### **Office Notes**

Concur. Remove charted mooring buoy.

## 1.25) dolphin- 22GP

#### **Survey Summary**

Survey Position:	41° 43' 56.0" N, 087° 31' 44.4" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-312.23:54:19 (11/08/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	22
Charts Affected:	14926_27, 14929_1, 14926_11, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Visually inspected - charted item was not seen. Area was investigated with SSS during project OPR-Y387-NRT4-05, sheet H11452, and was not seen. Area appears to have recently undergone shoreline construction in the form of riprap/boulders. Items where apparently removed or covered at that time. Chart used: 14926\_11.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	22	0.00	000.0	Primary

# Hydrographer Recommendations

Hydographer recommends removing item from chart.

#### S-57 Data

[None]

## **Office Notes**

Concur. Remove charted dolphin.

## 1.26) dolphin- 23GP

#### **Survey Summary**

Survey Position:	41° 43' 55.7" N, 087° 31' 43.1" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-312.23:54:25 (11/08/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	23
Charts Affected:	14926_27, 14929_1, 14926_11, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Visually inspected - charted item was not seen. Area was investigated with SSS during project OPR-Y387-NRT4-05, sheet H11452, and was not seen. Area appears to have recently undergone shoreline construction in the form of riprap/boulders. Items where apparently removed or covered at that time. Chart used: 14926\_11.

### **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	23	0.00	000.0	Primary

## **Hydrographer Recommendations**

Hydographer recommends removing item from chart.

#### S-57 Data

[None]

## **Office Notes**

Concur. Remove charted dolphin.

## 1.27) Crib- 24GP

#### **Survey Summary**

Survey Position:	41° 42' 32.6" N, 087° 31' 25.6" W
Least Depth:	[None]
TPU (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-313.00:00:39 (11/09/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	24
Charts Affected:	14929_1, 14926_11, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Changed - Charted item was visually inspected and is in ruins. Chart used: 14926\_11.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	24	0.00	000.0	Primary

## **Hydrographer Recommendations**

Hydrographer recommends updating charts to represent present survey findings.

### S-57 Data

- Geo object 1: Obstruction (OBSTRN)
- Attributes: CATOBS 4:crib

CONDTN - 2:ruined

- SORDAT 20061020
- SORIND US,US,survy,F00502
- STATUS 1:permanent

WATLEV - 2:always dry

## **Office Notes**

Concur. Update charted crib as in ruins.

## 1.28) bkw- 25GP

#### **Survey Summary**

Survey Position:	41° 41' 56.4" N, 087° 30' 29.7" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-313.00:04:48 (11/09/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	25
Charts Affected:	14929_1, 14926_11, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Item charted as submerged breakwall, represented by Chart GPs 25, 26, 27, is visably awash. Chart used: 14926\_11.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	25	0.00	000.0	Primary

## **Hydrographer Recommendations**

Hydrographer recommends updating charts to represent present survey findings.

### S-57 Data

- Geo object 1: Shoreline Construction (SLCONS)
- Attributes: CATSLC 1:breakwater SORDAT - 20061017

STATUS - 1:permanent

WATLEV - 5:awash

## **Office Notes**

## 1.29) bkw- 26GP

#### **Survey Summary**

Survey Position:	41° 41' 53.0" N, 087° 30' 19.0" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-313.00:04:56 (11/09/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	26
Charts Affected:	14929_1, 14926_11, 14926_12, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Item charted as submerged breakwall, represented by Chart GPs 25, 26, 27, is visably awash. Chart used: 14926\_11.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	26	0.00	000.0	Primary

## **Hydrographer Recommendations**

Hydrographer recommends updating charts to represent present survey findings.

### S-57 Data

- Geo object 1: Shoreline Construction (SLCONS)
- Attributes: CATSLC 1:breakwater

SORDAT - 20061017 STATUS - 1:permanent

WATLEV - 5:awash

## **Office Notes**

# 1.30) bkw- 27GP

#### **Survey Summary**

Survey Position:	41° 41' 44.7" N, 087° 30' 10.9" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-313.00:05:00 (11/09/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	27
Charts Affected:	14929_1, 14926_11, 14926_12, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Item charted as submerged breakwall, represented by Chart GPs 25, 26, 27, is visably awash. Chart used: 14926\_11.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	27	0.00	000.0	Primary

## **Hydrographer Recommendations**

Hydrographer recommends updating charts to represent present survey findings.

### S-57 Data

- Geo object 1: Shoreline Construction (SLCONS)
- Attributes: CATSLC 1:breakwater SORDAT - 20061017

STATUS - 1:permanent

WATLEV - 5:awash

## **Office Notes**

## 1.31) bkw- 28GP

#### **Survey Summary**

Survey Position:	41° 41' 55.0" N, 087° 30' 34.6" W
Least Depth:	[None]
TPU (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-313.00:07:50 (11/09/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	28
Charts Affected:	14929_1, 14926_11, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Item charted as submerged breakwall, represented by Chart GP 28, is visably awash. Chart used: 14926\_11.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	28	0.00	000.0	Primary

## **Hydrographer Recommendations**

Hydrographer recommends updating charts to represent present survey findings.

### S-57 Data

- Geo object 1: Shoreline Construction (SLCONS)
- Attributes: CATSLC 1:breakwater SORDAT - 20061017

STATUS - 1:permanent

WATLEV - 5:awash

## **Office Notes**

## 1.32) ruins- 29GP

### **Survey Summary**

Survey Position:	41° 41' 33.5" N, 087° 30' 12.8" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-313.00:16:10 (11/09/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	29
Charts Affected:	14929_1, 14926_11, 14926_12, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Area was visually inspected from a safe navigable distance - No ruins visible. Chart used: 14926\_11.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	29	0.00	000.0	Primary

## **Hydrographer Recommendations**

Hydrographer recommends removing ruins from the charts.

## S-57 Data

[None]

### **Office Notes**

Do not concur. Item was not investigated and is not visible, therefore, not disproven. Defer to MCD for charting ruins recommendations.

## 1.33) pile- 30GP

### **Survey Summary**

Survey Position:	41° 41' 22.5" N, 087° 30' 00.7" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-313.00:20:04 (11/09/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	30
Charts Affected:	14929_1, 14926_11, 14926_12, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

The four charted piles where visually disproved. Items where not investigated w/ SSS. Chart used: 14926\_11.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	30	0.00	000.0	Primary

## **Hydrographer Recommendations**

Because items where not investigated w/ SSS, hydrographer recommends charting items as submerged.

## S-57 Data

Geo object 1: Pile (PILPNT)

Attributes: INFORM - chart as submerged. SORDAT - 20061020

SORIND - US,US,survy,F00502

## **Office Notes**

## 1.34) pile- 31GP

### **Survey Summary**

Survey Position:	41° 41' 21.5" N, 087° 30' 00.9" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-313.00:21:09 (11/09/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	31
Charts Affected:	14929_1, 14926_11, 14926_12, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

The four charted piles where visually disproved. Items where not investigated w/ SSS. Chart used: 14926\_11.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	31	0.00	000.0	Primary

## **Hydrographer Recommendations**

Because items where not investigated w/ SSS, hydrographer recommends charting items as submerged.

## S-57 Data

Geo object 1: Pile (PILPNT)

Attributes: INFORM - chart as submerged SORDAT - 20061020

SORIND - US,US,survy,F00502

## **Office Notes**

## 1.35) pile- 32GP

### **Survey Summary**

Survey Position:	41° 41' 22.3" N, 087° 30' 01.0" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-313.00:21:14 (11/09/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	32
Charts Affected:	14929_1, 14926_11, 14926_12, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

The four charted piles where visually disproved. Items where not investigated w/ SSS. Chart used: 14926\_11.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	32	0.00	000.0	Primary

## **Hydrographer Recommendations**

Because items where not investigated w/ SSS, hydrographer recommends charting items as submerged.

## S-57 Data

Geo object 1: Pile (PILPNT)

Attributes: INFORM - chart as submerged SORDAT - 20061020

SORIND - US,US,survy,F00502

## **Office Notes**

## 1.36) pile- 33GP

### **Survey Summary**

Survey Position:	41° 41' 23.1" N, 087° 30' 01.1" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-313.00:21:20 (11/09/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	33
Charts Affected:	14929_1, 14926_11, 14926_12, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

The four charted piles where visually disproved. Items where not investigated w/ SSS. Chart used: 14926\_11.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	33	0.00	000.0	Primary

## **Hydrographer Recommendations**

Because items where not investigated w/ SSS, hydrographer recommends charting items as submerged.

## S-57 Data

Geo object 1: Pile (PILPNT)

Attributes: INFORM - chart as submerged SORDAT - 20061020

SORIND - US,US,survy,F00502

## **Office Notes**

## 1.37) dolphins- 34GP

#### **Survey Summary**

Survey Position:	41° 40' 45.7" N, 087° 28' 53.3" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-313.00:52:48 (11/09/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	34
Charts Affected:	14929_1, 14926_12, 14926_31, 14926_32, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Visually Disproved - Charted items where not visible. Chart used: 14926\_12.

#### **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	34	0.00	000.0	Primary

## **Hydrographer Recommendations**

Because items where not investigated w/ SSS, hydrographer recommends charting items as submerged.

#### S-57 Data

- Geo object 1: Mooring/warping facility (MORFAC)
- Attributes: CATMOR 1:dolphin
  - INFORM chart as submerged
  - SORDAT 20061020
  - SORIND US,US,survy,F00502
  - VERDAT 12:Mean lower low water

## **Office Notes**

Concur. Update all charted dolphins as submerged.

## 1.38) dolphin- 35GP

#### **Survey Summary**

Survey Position:	41° 40' 46.3" N, 087° 28' 52.8" W
Least Depth:	[None]
TPU (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-313.00:52:57 (11/09/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	35
Charts Affected:	14929_1, 14926_12, 14926_31, 14926_32, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Visually Disproved - Charted items where not visible. Chart used: 14926\_12.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	35	0.00	000.0	Primary

## **Hydrographer Recommendations**

Because items where not investigated w/ SSS, hydrographer recommends charting items as submerged.

#### S-57 Data

- **Geo object 1:** Mooring/warping facility (MORFAC)
- Attributes: CATMOR 1:dolphin

INFORM - chart as submerged

SORDAT - 20061020

SORIND - US,US,survy,F00502

## **Office Notes**

Concur. Update all charted dolphins as submerged.

## 1.39) OBSTRN- 36GP

#### **Survey Summary**

Survey Position:	41° 40' 44.1" N, 087° 28' 51.6" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-313.01:01:07 (11/09/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	36
Charts Affected:	14929_1, 14926_12, 14926_31, 14926_32, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Changed - Items charted as dolphins are actually an awash steel obstruction. Chart used: 14926\_12.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	36	0.00	000.0	Primary

## **Hydrographer Recommendations**

Hydrographer recommends updating charts to reflect present survey findings.

### S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: INFORM - steel

NATCON - 7:metal

QUASOU - 2:depth unknown

SORDAT - 20061020

SORIND - US,US,survy,F00502

VERDAT - 12:Mean lower low water

WATLEV - 5:awash

# **Office Notes**

Do not concur. Retain as charted.

## 1.40) OBSTRN- 37GP

#### **Survey Summary**

Survey Position:	41° 40' 44.9" N, 087° 28' 51.0" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-313.01:01:11 (11/09/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	37
Charts Affected:	14929_1, 14926_12, 14926_31, 14926_32, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Changed - Items charted as dolphins are actually an awash steel obstruction. Chart used: 14926\_12.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	37	0.00	000.0	Primary

## **Hydrographer Recommendations**

Hydrographer recommends updating charts to reflect present survey findings.

### S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: INFORM - steel

NATCON - 7:metal

QUASOU - 2:depth unknown

SORDAT - 20061020

SORIND - US,US,survy,F00502

VERDAT - 12:Mean lower low water

WATLEV - 5:awash

# **Office Notes**

Do not Concur. Retain as charted.

## 1.41) privmarker- 38GP

### **Survey Summary**

Survey Position:	41° 40' 51.4" N, 087° 28' 22.7" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-313.01:23:59 (11/09/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	38
Charts Affected:	14929_1, 14926_12, 14926_31, 14926_32, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Visually Disproved - Private marker W Or "A" does not exist. Chart used: 14926\_12.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	38	0.00	000.0	Primary

## **Hydrographer Recommendations**

Hydrographer recommends removing private marker W Or "A" from the chart.

## S-57 Data

[None]

#### **Office Notes**

Concur. Remove private marker W Or "A" from the chart.

## 1.42) pier- 39GP

### **Survey Summary**

Survey Position:	41° 38' 37.8" N, 087° 24' 35.3" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-313.01:31:21 (11/09/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	39
Charts Affected:	14926_13, 14929_1, 14926_32, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Submerged pier extending from DP2574 to Chart GP 39 was investigated w/ 200% SSS and determined to not exist. Chart Used:  $14926_{-13}$ 

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	39	0.00	000.0	Primary

## **Hydrographer Recommendations**

Hydrographer recommends removing this section of the charted object from all charts and ENCs.

## S-57 Data

[None]

### **Office Notes**

## 1.43) pier- 40GP

### **Survey Summary**

Survey Position:	41° 38' 35.3" N, 087° 24' 30.7" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-313.01:33:17 (11/09/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	40
Charts Affected:	14926_13, 14929_1, 14926_32, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

The charted item, represented by Chart GPs 40 41, was investigated w/ 200% SSS and determined to not exist. Chart used: 14926\_13.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	40	0.00	000.0	Primary

## **Hydrographer Recommendations**

Hydrographer recommends removing item from chart.

#### S-57 Data

[None]

### **Office Notes**

## 1.44) pier- 41GP

### **Survey Summary**

Survey Position:	41° 38' 30.3" N, 087° 24' 21.6" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-313.01:33:23 (11/09/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	41
Charts Affected:	14926_13, 14929_1, 14926_32, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

The charted item, represented by Chart GPs 40 41, was investigated w/ 200% SSS and determined to not exist. Chart used: 14926\_13.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	41	0.00	000.0	Primary

## **Hydrographer Recommendations**

Hydrographer recommends removing item from chart.

#### S-57 Data

[None]

### **Office Notes**

## 1.45) buoy- 42GP

### **Survey Summary**

Survey Position:	41° 37' 27.5" N, 087° 19' 27.0" W
Least Depth:	[None]
TPU (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-313.01:39:30 (11/09/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	42
Charts Affected:	14926_14, 14927_2, 14926_32, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Item's existance was visually verified and was seen to be a red light. Chart used: 14926\_14.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	42	0.00	000.0	Primary

## **Hydrographer Recommendations**

Hydrographer recommends updating chart to represent present survey findings.

## S-57 Data

- Geo object 1: Buoy, special purpose/general (BOYSPP)
- Attributes: COLOUR 3:red

SORDAT - 20061020

SORIND - US,US,survy,F00502

## **Office Notes**

Concur. Update charted private buoy to have a red light.

## **1.46) buoy- 43GP**

### **Survey Summary**

Survey Position:	41° 38' 49.8" N, 087° 07' 39.0" W
Least Depth:	[None]
TPU (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-313.01:48:12 (11/09/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	43
Charts Affected:	14905_4, 14926_15, 14926_32, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Disproved - Item visually inspected and determined to not exist. Chart used: 14926\_15.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	43	0.00	000.0	Primary

## **Hydrographer Recommendations**

Hydrographer recommends removing private buoy W Or "A" from chart.

## S-57 Data

[None]

### **Office Notes**

Concur. Remove private buoy W Or "A" from all charts.

## **1.47) buoy- 44GP**

### **Survey Summary**

Survey Position:	41° 38' 53.4" N, 087° 07' 33.7" W
Least Depth:	[None]
TPU (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-313.01:48:16 (11/09/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	44
Charts Affected:	14905_4, 14926_15, 14926_32, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Disproved - Item visually inspected and determined to not exist. Chart used: 14926\_15.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	44	0.00	000.0	Primary

## **Hydrographer Recommendations**

Hydrographer recommends removing private buoy W Or "B" from chart.

## S-57 Data

[None]

### **Office Notes**

Concur. Remove private buoy W Or "B" from all charts.

## 1.48) buoy- 45GP

### **Survey Summary**

Survey Position:	41° 38' 54.6" N, 087° 07' 27.1" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-313.01:48:22 (11/09/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	45
Charts Affected:	14905_4, 14926_15, 14926_32, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Disproved - Item visually inspected and determined to not exist. Chart used: 14926\_15.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	45	0.00	000.0	Primary

## **Hydrographer Recommendations**

Hydrographer recommends removing private buoy W Or "C" from chart.

## S-57 Data

[None]

### **Office Notes**

Concur. Remove private buoy W Or "C" from all charts.

## 1.49) buoy- 46GP

### **Survey Summary**

Survey Position:	41° 38' 53.4" N, 087° 07' 19.6" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-313.01:48:30 (11/09/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	46
Charts Affected:	14905_4, 14926_15, 14926_32, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Disproved - Item visually inspected and determined to not exist. Chart used: 14926\_15.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	46	0.00	000.0	Primary

## **Hydrographer Recommendations**

Hydrographer recommends removing private buoy W Or "D" from chart.

## S-57 Data

[None]

### **Office Notes**

Concur. Remove private buoy W Or "D" from all charts.

### **1.50) buoy- 47GP**

### **Survey Summary**

Survey Position:	41° 38' 50.1" N, 087° 07' 16.8" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-313.01:48:35 (11/09/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	47
Charts Affected:	14905_4, 14926_15, 14926_32, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Disproved - Item visually inspected and determined to not exist. Chart used: 14926\_15.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	47	0.00	000.0	Primary

## **Hydrographer Recommendations**

Hydrographer recommends removing private buoy W Or "E" from chart.

## S-57 Data

[None]

#### **Office Notes**

Concur. Remove private buoy W Or "E" from all charts.

## 1.51) pile- 48GP

### **Survey Summary**

Survey Position:	41° 54' 11.4" N, 087° 36' 33.6" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-333.23:59:27 (11/29/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	48
Charts Affected:	14926_6, 14928_1, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Visually inspected - exposed item not seen. Submerged piles where not investigated w/ SSS and their existance was not disproved. Chart 14928\_1.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	48	0.00	000.0	Primary

#### **Hydrographer Recommendations**

Hydrographer recommends labeling all piles as submerged.

### S-57 Data

Geo object 1: Pile (PILPNT)

Attributes: INFORM - chart as submerged SORDAT - 20061020 SORIND - US,US,survy,F00502

#### **Office Notes**

Concur. Update charted piles as submerged.

## 1.52) pile- 59GP

### **Survey Summary**

Survey Position:	41° 54' 10.6" N, 087° 36' 33.5" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-333.23:59:38 (11/29/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	49
Charts Affected:	14926_6, 14928_1, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Visually inspected - exposed item not seen. Submerged piles where not investigated w/ SSS and their existance was not disproved. Chart 14928\_1.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	49	0.00	000.0	Primary

#### **Hydrographer Recommendations**

Hydrographer recommends labeling all piles as submerged.

### S-57 Data

Geo object 1: Pile (PILPNT)

Attributes: INFORM - chart as submerged SORDAT - 20061020 SORIND - US,US,survy,F00502

#### **Office Notes**

Concur. Update charted piles as submerged.

## 1.53) pier- 50GP

#### **Survey Summary**

Survey Position:	42° 04' 13.4" N, 087° 40' 43.3" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-334.02:03:44 (11/30/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	50
Charts Affected:	14926_1, 14926_18, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Visually inspected - Item charted as submerged pier was seen as awash. Item is not charted on corresponding ENC. Chart used: 14926\_1.

### **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	50	0.00	000.0	Primary

#### **Hydrographer Recommendations**

Hydographer recommends updating ENC US4IL10M to match raster 14926\_1.

#### S-57 Data

**Geo object 1:** Shoreline Construction (SLCONS)

Attributes: CATSLC - 4:pier (jetty)

CONDTN - 2:ruined

SORDAT - 20061017

WATLEV - 5:awash

## **Office Notes**

## 1.54) pier- 51GP

#### **Survey Summary**

Survey Position:	42° 04' 10.6" N, 087° 40' 41.4" W
Least Depth:	[None]
TPU (±1.96 <b>0</b> ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-334.02:03:53 (11/30/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	51
Charts Affected:	14926_1, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Visually Inspected - Existance could not be verified. Item was not investigated w/ SSS. Item is not charted on the corresponding ENC. Chart used: 14926\_1.

### **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	51	0.00	000.0	Primary

#### **Hydrographer Recommendations**

Hydrographer recommends retaining item as charted and updating corresponding ENC US4IL10M to match 14926\_1.

## S-57 Data

Geo object 1: Shoreline Construction (SLCONS)

Attributes: CATSLC - 4:pier (jetty) SORDAT - 20061017 WATLEV - 3:always under water/submerged

#### **Office Notes**

## 1.55) pier- 52GP

#### **Survey Summary**

Survey Position:	42° 04' 08.2" N, 087° 40' 39.8" W
Least Depth:	[None]
TPU (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-334.02:04:14 (11/30/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	52
Charts Affected:	14926_1, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Visually inspected - Item charted as submerged pier was seen as awash. Item is not charted on corresponding ENC. Chart used: 14926\_1.

### **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	52	0.00	000.0	Primary

#### **Hydrographer Recommendations**

Hydographer recommends updating ENC US4IL10M to match raster 14926\_1.

#### S-57 Data

**Geo object 1:** Shoreline Construction (SLCONS)

Attributes: CATSLC - 4:pier (jetty)

CONDTN - 2:ruined

SORDAT - 20061017

WATLEV - 5:awash

## **Office Notes**

## 1.56) pier- 53GP

#### **Survey Summary**

Survey Position:	42° 04' 06.0" N, 087° 40' 37.7" W
Least Depth:	[None]
TPU (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-334.02:04:22 (11/30/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	53
Charts Affected:	14926_1, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Visually inspected - Item charted as submerged pier was seen as awash. Item is not charted on corresponding ENC. Chart used: 14926\_1.

### **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	53	0.00	000.0	Primary

#### **Hydrographer Recommendations**

Hydographer recommends updating ENC US4IL10M to match raster 14926\_1.

#### S-57 Data

**Geo object 1:** Shoreline Construction (SLCONS)

Attributes: CATSLC - 4:pier (jetty)

CONDTN - 2:ruined

SORDAT - 20061017

WATLEV - 5:awash

## **Office Notes**

## 1.57) pier- 54GP

## **Survey Summary**

Survey Position:	42° 03' 58.5" N, 087° 40' 32.5" W
Least Depth:	[None]
TPU (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-334.02:28:04 (11/30/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	54
Charts Affected:	14926_1, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Visually inspected - Item charted as submerged pier was seen as awash. Item is not charted on corresponding ENC. Chart used: 14926\_1.

### **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	54	0.00	000.0	Primary

#### **Hydrographer Recommendations**

Hydographer recommends updating ENC US4IL10M to match raster 14926\_1.

#### S-57 Data

Geo object 1: Shoreline Construction (SLCONS)

Attributes: CATSLC - 4:pier (jetty)

SORDAT - 20061017

WATLEV - 5:awash

#### **Office Notes**

## 1.58) foularea- 55GP

### **Survey Summary**

Survey Position:	42° 02' 21.2" N, 087° 40' 08.1" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-334.02:47:44 (11/30/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	55
Charts Affected:	14926_2, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Visually Inspected - Exists as charted on 14926\_2. Item is not charted on ENC US4IL10M.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	55	0.00	000.0	Primary

## **Hydrographer Recommendations**

Hydrographer recommends updating ENC US4IL10M to match chart 14926\_2.

#### S-57 Data

- Geo object 1: Obstruction (OBSTRN)
- Attributes: CATOBS 6:foul area
  - QUASOU 2:depth unknown
  - SORDAT 20061020
  - SORIND US,US,survy,F00502
  - VERDAT 12:Mean lower low water

WATLEV - 5:awash

## **Office Notes**

#### Concur. Retain charted foul area.

## 1.59) foularea- 56GP

#### **Survey Summary**

Survey Position:	42° 02' 16.6" N, 087° 40' 08.6" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-334.02:47:51 (11/30/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	56
Charts Affected:	14926_2, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Visually Inspected - Exists as charted on 14926\_2. Item is not charted on ENC US4IL10M.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	56	0.00	000.0	Primary

## **Hydrographer Recommendations**

Hydrographer recommends updating ENC US4IL10M to match chart 14926\_2.

### S-57 Data

- **Geo object 1:** Obstruction (OBSTRN)
- Attributes:CATOBS 6:foul areaQUASOU 2:depth unknownSORDAT 20061020SORIND US,US,survy,F00502VERDAT 12:Mean lower low waterWATLEV 5:awashGeo object 2:Shoreline Construction (SLCONS)Attributes:CATSLC 4:pier (jetty)WATLEV 5:awash

# **Office Notes**

Concur. Retain charted foul area.

## 1.60) pile- 57GP

### **Survey Summary**

Survey Position:	42° 02' 01.7" N, 087° 40' 07.4" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-334.03:02:39 (11/30/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	57
Charts Affected:	14926_2, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Visually Inspected - Item and associated pile exist as charted on 14926\_2. Item is not charted on corresponding ENC, US4IL10M.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	57	0.00	000.0	Primary

#### **Hydrographer Recommendations**

Hydrographer recommends updating ENC US4IL10M to match 14926\_2.

#### S-57 Data

**Geo object 1:** Pile (PILPNT)

Attributes: SORDAT - 20061020 SORIND - US,US,survy,F00502

## **Office Notes**

## 1.61) pile- 58GP

### **Survey Summary**

Survey Position:	42° 02' 01.1" N, 087° 40' 08.2" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-334.03:02:44 (11/30/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	58
Charts Affected:	14926_2, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Visually Inspected - Item and associated pile exist as charted on 14926\_2. Item is not charted on corresponding ENC, US4IL10M.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	58	0.00	000.0	Primary

#### **Hydrographer Recommendations**

Hydrographer recommends updating ENC US4IL10M to match 14926\_2.

#### S-57 Data

**Geo object 1:** Pile (PILPNT)

Attributes: SORDAT - 20061020 SORIND - US,US,survy,F00502

## **Office Notes**

## 1.62) pile- 59GP

### **Survey Summary**

Survey Position:	42° 01' 59.6" N, 087° 40' 07.2" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-334.03:02:49 (11/30/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	59
Charts Affected:	14926_2, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Visually Inspected - Item and nearby pile exist as charted on 14926\_2. Item is not charted on corresponding ENC, US4IL10M.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	59	0.00	000.0	Primary

## **Hydrographer Recommendations**

Hydrographer recommends updating ENC US4IL10M to match 14926\_2.

### S-57 Data

**Geo object 1:** Pile (PILPNT)

Attributes: SORDAT - 20061020 SORIND - US,US,survy,F00502

## **Office Notes**

## 1.63) pile- 60GP

### **Survey Summary**

Survey Position:	42° 01' 57.8" N, 087° 40' 06.9" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-334.03:02:53 (11/30/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	60
Charts Affected:	14926_2, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Visually Inspected - Item and nearby piles exist as charted on 14926\_2. Item is not charted on corresponding ENC, US4IL10M.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	60	0.00	000.0	Primary

## **Hydrographer Recommendations**

Hydrographer recommends updating ENC US4IL10M to match 14926\_2.

### S-57 Data

**Geo object 1:** Pile (PILPNT)

Attributes: SORDAT - 20061020 SORIND - US,US,survy,F00502

## **Office Notes**

## 1.64) pile- 61GP

### **Survey Summary**

Survey Position:	42° 01' 55.7" N, 087° 40' 06.3" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-334.03:02:57 (11/30/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	61
Charts Affected:	14926_2, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Visually Inspected - Item exist as charted on 14926\_2. Item is not charted on corresponding ENC, US4IL10M.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	61	0.00	000.0	Primary

## **Hydrographer Recommendations**

Hydrographer recommends updating ENC US4IL10M to match 14926\_2.

## S-57 Data

Geo object 1: Pile (PILPNT)

Attributes: SORDAT - 20061020 SORIND - US,US,survy,F00502

## **Office Notes**

## 1.65) pile- 62GP

### **Survey Summary**

Survey Position:	42° 01' 44.7" N, 087° 40' 05.7" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-334.03:13:43 (11/30/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	62
Charts Affected:	14926_2, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Piles extending to this point were visually inspected and exist as charted on 14926\_2. Items are not charted on corresponding ENC, US4IL10M.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	62	0.00	000.0	Primary

#### **Hydrographer Recommendations**

Hydrographer recommends updating ENC US41L10M to match raster 14926\_2.

#### S-57 Data

**Geo object 1:** Pile (PILPNT)

Attributes: SORDAT - 20061020 SORIND - US,US,survy,F00502

## **Office Notes**

## 1.66) pile- 63GP

### **Survey Summary**

Survey Position:	42° 01' 42.7" N, 087° 40' 05.3" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-334.03:13:48 (11/30/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	63
Charts Affected:	14926_2, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Piles extending to this point were visually inspected and exist as charted on 14926\_2. Items are not charted on corresponding ENC, US4IL10M.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	63	0.00	000.0	Primary

#### **Hydrographer Recommendations**

Hydrographer recommends updating ENC US41L10M to match raster 14926\_2.

#### S-57 Data

**Geo object 1:** Pile (PILPNT)

Attributes: SORDAT - 20061020 SORIND - US,US,survy,F00502

## **Office Notes**

## 1.67) pile- 64GP

### **Survey Summary**

Survey Position:	42° 01' 41.1" N, 087° 40' 04.5" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-334.03:13:53 (11/30/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	64
Charts Affected:	14926_2, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Piles extending to this point were visually inspected and exist as charted on 14926\_2. Items are not charted on corresponding ENC, US4IL10M.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	64	0.00	000.0	Primary

#### **Hydrographer Recommendations**

Hydrographer recommends updating ENC US41L10M to match raster 14926\_2.

#### S-57 Data

**Geo object 1:** Pile (PILPNT)

Attributes: SORDAT - 20061020 SORIND - US,US,survy,F00502

## **Office Notes**

## 1.68) pier- 65GP

#### **Survey Summary**

Survey Position:	42° 01' 33.0" N, 087° 39' 57.3" W
Least Depth:	[None]
TPU (±1.96 <b>0</b> ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-334.03:18:48 (11/30/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	65
Charts Affected:	14926_2, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Pier and piles extending to this point were visually inspected and exist as charted on 14926\_2. Items are not charted on corresponding ENC, US4IL10M.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	65	0.00	000.0	Primary

#### **Hydrographer Recommendations**

Hydrographer recommends updating ENC US41L10M to match raster 14926\_2.

#### S-57 Data

**Geo object 1:** Shoreline Construction (SLCONS)

Attributes: CATSLC - 4:pier (jetty)

SORDAT - 20061017

WATLEV - 2:always dry

#### **Office Notes**

## 1.69) pier- 66GP

#### **Survey Summary**

Survey Position:	42° 01' 30.5" N, 087° 39' 56.1" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-334.03:18:57 (11/30/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	66
Charts Affected:	14926_2, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Pier and piles extending to this point were visually inspected and exist as charted on 14926\_2. Items are not charted on corresponding ENC, US4IL10M.

### **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	66	0.00	000.0	Primary

#### **Hydrographer Recommendations**

Hydrographer recommends updating ENC US41L10M to match raster 14926\_2.

#### S-57 Data

**Geo object 1:** Shoreline Construction (SLCONS)

Attributes: CATSLC - 4:pier (jetty)

SORDAT - 20061017

WATLEV - 2:always dry

#### **Office Notes**

## 1.70) pier- 67GP

#### **Survey Summary**

Survey Position:	42° 01' 27.8" N, 087° 39' 55.1" W
Least Depth:	[None]
TPU (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-334.03:19:01 (11/30/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	67
Charts Affected:	14926_2, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Pier and piles extending to this point were visually inspected and exist as charted on 14926\_2. Items are not charted on corresponding ENC, US4IL10M.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	67	0.00	000.0	Primary

#### **Hydrographer Recommendations**

Hydrographer recommends updating ENC US41L10M to match raster 14926\_2.

#### S-57 Data

Geo object 1: Shoreline Construction (SLCONS)

Attributes: CATSLC - 4:pier (jetty)

SORDAT - 20061017

WATLEV - 2:always dry

#### **Office Notes**

## 1.71) pier- 68GP

#### **Survey Summary**

Survey Position:	42° 01' 24.9" N, 087° 39' 53.8" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-334.03:19:09 (11/30/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	68
Charts Affected:	14926_2, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Pier and piles extending to this point were visually inspected and exist as charted on 14926\_2. Items are not charted on corresponding ENC, US4IL10M.

### **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	68	0.00	000.0	Primary

#### **Hydrographer Recommendations**

Hydrographer recommends updating ENC US41L10M to match raster 14926\_2.

#### S-57 Data

**Geo object 1:** Shoreline Construction (SLCONS)

Attributes: CATSLC - 4:pier (jetty)

SORDAT - 20061017

WATLEV - 2:always dry

#### **Office Notes**

## 1.72) pier- 70GP

#### **Survey Summary**

Survey Position:	42° 01' 22.2" N, 087° 39' 52.6" W
Least Depth:	[None]
TPU (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-349.02:09:04 (12/15/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	70
Charts Affected:	14926_2, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Pier extending to this point was visually inspected and determined to exist as charted on 14926\_2. Items are not charted on corresponding ENC, US4IL10M.

### **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	70	0.00	000.0	Primary

#### **Hydrographer Recommendations**

Hydrographer recommends updating ENC US41L10M to match raster 14926\_2.

#### S-57 Data

**Geo object 1:** Shoreline Construction (SLCONS)

Attributes: CATSLC - 4:pier (jetty)

SORDAT - 20061017

WATLEV - 2:always dry

#### **Office Notes**

## 1.73) SLCONS-71GP

### **Survey Summary**

Survey Position:	41° 38' 37.0" N, 087° 24' 41.2" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-349.23:30:57 (12/15/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	71
Charts Affected:	14926_13, 14929_1, 14926_32, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

This is the southwest onshore end of the newly constructed visible steel shoreline construction.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	71	0.00	000.0	Primary

## **Hydrographer Recommendations**

Please see DP2574 for charting recommendations.

## S-57 Data

[None]

#### **Office Notes**

Defer to MCD for charting shoreline construction recommendations.

## 1.74) pier- 72GP

### **Survey Summary**

Survey Position:	41° 38' 36.6" N, 087° 24' 40.6" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-349.23:36:33 (12/15/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	72
Charts Affected:	14926_13, 14929_1, 14926_32, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

This GP marks the onshore southwest end of the pier in ruins connecting with DP2575.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	72	0.00	000.0	Primary

## Hydrographer Recommendations

Please see DP2575 for charting recommendations.

## S-57 Data

[None]

### **Office Notes**

## 1.75) pier- 73GP

#### **Survey Summary**

Survey Position:	42° 01' 06.2" N, 087° 39' 47.4" W
Least Depth:	[None]
TPU (±1.96 <b>5</b> ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-352.22:09:03 (12/18/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	73
Charts Affected:	14926_2, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Pier extending to this point was visually inspected and determined to exist as charted on 14926\_2. Item is not charted on corresponding ENC, US4IL10M.

### **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	73	0.00	000.0	Primary

#### **Hydrographer Recommendations**

Hydrographer recommends updating ENC US41L10M to match raster 14926\_2.

#### S-57 Data

**Geo object 1:** Shoreline Construction (SLCONS)

Attributes: CATSLC - 4:pier (jetty)

SORDAT - 20061017

WATLEV - 2:always dry

#### **Office Notes**

## 1.76) rock- 74GP

#### **Survey Summary**

Survey Position:	41° 58' 59.2" N, 087° 39' 02.0" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-354.00:58:38 (12/20/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	74
Charts Affected:	14926_3, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Rock charted as awash on Chart 14926\_3 was visually inspected and determined to exist as charted. Item is not charted on corresponding ENC US4IL10M, however.

### **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	74	0.00	000.0	Primary

#### **Hydrographer Recommendations**

Hydrographer recommends updating ENC US4IL10M to match 14926\_3.

#### S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)

Attributes: INFORM - visually inspected

QUASOU - 2:depth unknown

SORDAT - 20061020

SORIND - US,US,survy,F00502

STATUS - 1:permanent

VERDAT - 12:Mean lower low water

WATLEV - 5:awash

# **Office Notes**

Concur. Retain awashed rock as charted from Chart 14926\_3.

## 1.77) Light- 75GP

### **Survey Summary**

Survey Position:	41° 58' 06.0" N, 087° 38' 33.7" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-354.01:12:11 (12/20/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	75
Charts Affected:	14926_4, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

"F R 12ft PA Priv" was visually inspected and determined to not exist. Chart Used: 14926\_4.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	75	0.00	000.0	Primary

## **Hydrographer Recommendations**

Hydrographer recommends removing charted light from all charts.

## S-57 Data

[None]

#### **Office Notes**

Concur. Remove charted "F R 12ft PA Priv" from all charts.

## 1.78) Light- 76GP

### **Survey Summary**

Survey Position:	41° 58' 05.6" N, 087° 38' 33.0" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-354.01:12:16 (12/20/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	76
Charts Affected:	14926_4, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

"F R 12ft PA Priv" was visually inspected and determined to not exist. Chart Used: 14926\_4.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	76	0.00	000.0	Primary

## **Hydrographer Recommendations**

Hydrographer recommends removing charted light from all charts.

## S-57 Data

[None]

#### **Office Notes**

Concur. Remove charted "F R 12ft PA Priv" from all charts.

## 1.79) Basin/ramp-77GP

### **Survey Summary**

Survey Position:	41° 58' 06.4" N, 087° 38' 35.2" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-354.01:12:21 (12/20/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	77
Charts Affected:	14926_4, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Area charted as "Ramps" and the associated basin were visually inspected and determined to not exist. Entire area has been filled in.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	77	0.00	000.0	Primary

## **Hydrographer Recommendations**

Hydrographer recommends removing "Ramps" and the assiciated basin from all charts and ENCs.

#### S-57 Data

[None]

## **Office Notes**

Concur with clarification. Currently, ramps no longer appears on the continual raster chart as of 09-23-2008. Remove the entire charted basin from all charts.

## 1.80) Mooringbuoy- 78GP

### **Survey Summary**

Survey Position:	41° 57' 00.2" N, 087° 38' 00.1" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-354.01:41:20 (12/20/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	78
Charts Affected:	14926_4, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Item charted as mooring buoy on chart 14926\_4 was inspected and determined to not be visably present. Item was not investigated with SSS.

## **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	78	0.00	000.0	Primary

## **Hydrographer Recommendations**

Hydrographer recommends removing mooring buoy from all charts.

### S-57 Data

[None]

### **Office Notes**

Concur. Remove mooring buoy form all charts.

# 1.81) Mooringbuoy- 79GP

### **Survey Summary**

Survey Position:	41° 56' 48.5" N, 087° 37' 53.8" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-354.01:41:30 (12/20/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	79
Charts Affected:	14926_4, 14926_5, 14928_1, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Item charted as mooring buoy on chart 14926\_4 was inspected and determined to not be visably present. Item was not investigated with SSS.

# **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	79	0.00	000.0	Primary

# **Hydrographer Recommendations**

Hydrographer recommends removing mooring buoy from all charts.

### S-57 Data

[None]

### **Office Notes**

Concur. Remove charted mooring buoy from all charts.

### 1.82) bkw-80GP

### **Survey Summary**

Survey Position:	41° 55' 56.5" N, 087° 37' 48.1" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-354.01:46:36 (12/20/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	80
Charts Affected:	14926_5, 14928_1, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Item charted as "Floating bkw (ruins) PA" was not visable. Item was not investigated w/ SSS. Item is believed to not exist.

# **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	80	0.00	000.0	Primary

## **Hydrographer Recommendations**

Hydrographer recommends removing item from all charts.

#### S-57 Data

[None]

# **Office Notes**

Do not concur. Item was not investigated but is not visible. Defer to MCD for charting bkw recommendations.

# 1.83) Hulk- 81GP

### **Survey Summary**

Survey Position:	41° 53' 27.2" N, 087° 36' 33.0" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-354.01:55:49 (12/20/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	81
Charts Affected:	14926_25, 14926_6, 14928_1, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Item charted as Hulk was inpected visually and with 200% SSS and determined to not exist.

# **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	81	0.00	000.0	Primary

# **Hydrographer Recommendations**

Hydrographer recommends removing item from all charts.

# S-57 Data

[None]

# **Office Notes**

Do not concur. Currently, a hulk no longer appears on the continual raster chart as of 09-23-2008.

# 1.84) Hulk- 82GP

### **Survey Summary**

Survey Position:	41° 53' 27.5" N, 087° 36' 17.2" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-354.01:55:55 (12/20/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	82
Charts Affected:	14926_25, 14926_6, 14928_1, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Item charted as Hulk was inpected visually and with 200% SSS and determined to not exist.

# **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	82	0.00	000.0	Primary

# **Hydrographer Recommendations**

Hydrographer recommends removing item from all charts.

# S-57 Data

[None]

#### **Office Notes**

Concur. Remove charted hulk from all charts.

## **1.85) buoy- 84GP**

### **Survey Summary**

Survey Position:	41° 48' 29.2" N, 087° 34' 40.9" W
Least Depth:	[None]
TPU (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-355.23:23:21 (12/21/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	84
Charts Affected:	14926_9, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Item charted as R N "2" does not exist as charted. Item was located in a nearby location and is charted on the corresponding ENC as "Morgan Shoals Lighted Buoy 2, Fl(1)R2.5s4M".

# **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	84	0.00	000.0	Primary

## **Hydrographer Recommendations**

Hygropher recommends removing item from its presently charted location and charting the item in its correct, surveyed location.

# S-57 Data

[None]

#### **Office Notes**

Do not concur. Morgan Shoals lighted buoy 2 is not currently charted on the continual raster chart as of 09-24-2008.

# 1.86) pier- 85GP

### **Survey Summary**

Survey Position:	41° 45' 45.3" N, 087° 33' 20.7" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-355.23:55:24 (12/21/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	85
Charts Affected:	14926_10, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Area foul w/ piers and piles in ruin. Corresponding ENC does not represent this.

# **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	85	0.00	000.0	Primary

# **Hydrographer Recommendations**

Hydrographer recommends updating ENC to represent present survey findings.

# S-57 Data

[None]

### **Office Notes**

Defer to MCD for charting foul area of pier and pile recommendations.

# 1.87) SLCONS- 86GP

### **Survey Summary**

Survey Position:	42° 01' 02.1" N, 087° 39' 45.7" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2008-036.11:11:05 (02/05/2008)
GP Dataset:	ChartGPs - Digitized
GP No.:	86
Charts Affected:	14926_2, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Rocky Island Exists as chartes, but is connected to shore. New shoreline collected with Backpack GPS. Please see MapInfo files DR for more info. Chart 14926\_2.

### **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	86	0.00	000.0	Primary

## **Hydrographer Recommendations**

Update chart to reflect new shoreline.

#### S-57 Data

**Geo object 1:** Shoreline Construction (SLCONS)

Attributes: WATLEV - 2:always dry

# **Office Notes**

Defer to MCD for new shoreline construction recommendations.

# 1.88) SLCONS- 87GP

### **Survey Summary**

Survey Position:	42° 00' 58.5" N, 087° 39' 43.6" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2008-036.11:11:14 (02/05/2008)
GP Dataset:	ChartGPs - Digitized
GP No.:	87
Charts Affected:	14926_2, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Rocky Island Exists as chartes, but is connected to shore. New shoreline collected with Backpack GPS. Please see MapInfo files DR for more info. Chart 14926\_2.

### **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	87	0.00	000.0	Primary

## **Hydrographer Recommendations**

Update chart to reflect new shoreline.

#### S-57 Data

**Geo object 1:** Shoreline Construction (SLCONS)

Attributes: WATLEV - 2:always dry

# **Office Notes**

Defer to MCD for charting new shoreline construction recommendations.

# 1.89) airfield- 88GP

### **Survey Summary**

Survey Position:	41° 51' 36.6" N, 087° 36' 28.6" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2008-036.12:04:00 (02/05/2008)
GP Dataset:	ChartGPs - Digitized
GP No.:	88
Charts Affected:	14926_7, 14928_1, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Merrill C. Meigs Airfield was demolished on August 5, 2003. Airfied no longer exists.

# **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	88	0.00	000.0	Primary

# **Hydrographer Recommendations**

Remove airfield from Charts.

# S-57 Data

[None]

# **Office Notes**

Defer to MCD for charting new shoreline construction recommendations.

# 1.90) Sounding- 89GP

#### **Survey Summary**

Survey Position:	41° 39' 10.9" N, 087° 07' 55.1" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2008-036.12:52:28 (02/05/2008)
GP Dataset:	ChartGPs - Digitized
GP No.:	89
Charts Affected:	14905_4, 14926_15, 14926_32, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Reported shoals investigated with SBES. Shoals hfound to exist.

#### **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	89	0.00	000.0	Primary

# **Hydrographer Recommendations**

Hydrographer recommends removing "Rep (1992)" notation and charting current surveyed soundings.

### S-57 Data

**Geo object 1:** Sounding (SOUNDG)

Attributes: QUASOU - 6:least depth known

SORDAT - 20061020

SORIND - US,US,nsurf,F00502

TECSOU - 1: found by echo-sounder

VERDAT - 12:Mean lower low water

#### **Office Notes**

Concur. Remove charted Rep (1992) text from chart 14926\_15. Retain current charted survey soundings.

# 1.91) OBSTRN- 5853/1

#### **Survey Summary**

Survey Position:	41° 43' 37.0" N, 087° 28' 53.1" W
Least Depth:	8.93 m (= 29.28 ft = 4.880 fm = 4 fm 5.28 ft)
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-291.20:11:48.600 (10/18/2006)
Survey Line:	f00502 / 3001sb / 2006-291 / 000_2005
Profile/Beam:	5853/1
Charts Affected:	14929_1, 14926_11, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

This charted obstruction is a DTON from a previous survey, H-11452. During the previous survey, this contact was seen on 200% SSS but it was unable to be located during singlebeam investigation so a least depth was not acquired. The obstruction was charted as a safety measure since it occurs in a channel and the hydrographers were unsure of the least depth. NRT-4 resurveyed this contact using 200% SSS and SB echosounder. The contact was again seen on both the 100% and 200% SSS records. SB investigation was then conducted in a star pattern and this time, the contact was seen on the echosounder trace. Echosounder data was corrected to Low Water Datum using observed verified tides with final zoning. The contact has a height of 1.5m but its least depth is not shoaler than the charted channel depth.

#### **Feature Correlation**

Address	Feature	Range	Azimuth	Status
f00502/3001sb/2006-291/000_2005	5853/1	0.00	000.0	Primary
f00502/3001sss500k/2006-291/ch061018123600	0001	0.96	348.4	Secondary
f00502/3001sss500k/2006-291/ch061018122300	0001	11.28	072.7	Secondary

#### **Hydrographer Recommendations**

Hydrographer recommends removing this obstruction from the chart.

#### **Cartographically-Rounded Depth (Affected Charts):**

29ft (14929\_1, 14926\_11, 14926\_31, 14927\_1, 14905\_1) 4 <sup>3</sup>/<sub>4</sub>fm (14500\_1) 29ft (14901\_1)

# S-57 Data

[None]

# **Office Notes**

Concur. Remove charted OBSTRN.

# F00502 Uncharted Items

<b>Registry Number:</b>	F00502
State:	Illinois
Locality:	Lake Michigan
Sub-locality:	South West Coast of Lake Michigan including Chicago
Project Number:	OPR-Y387-NRT4-05
Survey Dates:	09/06/2006 - 12/15/2006

# **Charts Affected**

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
				USCG LNM: 11/22/1994 (02/26/2008) CHS NTM: None (01/25/2008)
14926	11th	05/01/2006	1:10,000 (14926_2)	NGA NTM: None (03/01/2008)
				USCG LNM: 03/16/2004 (02/26/2008)
14926	11th	05/01/2006	1:10,000 (14926 7)	CHS NTM: None (01/25/2008) NGA NTM: None (03/01/2008)
14920	11111	03/01/2000	1:10,000 (14920_7)	× /
				USCG LNM: 06/18/2002 (02/26/2008) CHS NTM: None (01/25/2008)
14926	11th	05/01/2006	1:15,000 (14926_13)	NGA NTM: None (03/01/2008)
				USCG LNM: 03/06/2007 (02/26/2008)
14020	244	02/01/2002	1.15 000 (14020 1)	CHS NTM: None (01/25/2008)
14929	24th	02/01/2003	1:15,000 (14929_1)	NGA NTM: 03/20/1999 (03/01/2008)
				USCG LNM: 05/20/2008 (05/20/2008)
14928	22nd	04/01/2005	1:15,000 (14928 1)	CHS NTM: None (04/25/2008) NGA NTM: 02/14/2004 (05/24/2008)
11920	22110	01/01/2005	1.10,000 (11)20_1)	× /
				USCG LNM: 05/20/2008 (05/20/2008) CHS NTM: None (04/25/2008)
14927	25th	08/01/2006	1:60,000 (14927_1)	NGA NTM: 09/09/2006 (05/24/2008)
				USCG LNM: 07/24/2007 (05/20/2008)
				CHS NTM: None (04/25/2008)
14926	11th	05/01/2006	1:60,000 (14926_32)	NGA NTM: 11/28/1998 (05/24/2008)
				USCG LNM: 05/20/2008 (05/20/2008)
14026	11.1	05/01/2006	1 (0,000 (1402(-21)	CHS NTM: None (04/25/2008)
14926	11th	05/01/2006	1:60,000 (14926_31)	NGA NTM: 09/09/2006 (05/24/2008)
				USCG LNM: 10/23/2007 (02/26/2008)
14905	31st	01/01/2007	1:120,000 (14905_1)	CHS NTM: None (01/25/2008) NGA NTM: 09/09/2006 (03/01/2008)
14901	14th	10/01/2002	1:500,000 (14901_1)	[L]NTM: ?
14500	27th	10/01/2002	1:1,500,000 (14500_1)	[L]NTM: ?

# Features

No.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	OBSTRN-3654/1	Obstruction	8.54 m	41° 51' 05.2" N	087° 33' 38.7" W	
1.2	AWOIS #13029- 6308/1	Sounding	11.52 m	41° 55' 54.4" N	087° 33' 29.4" W	
1.3	Pier/piles- 69GP	GP	[None]	42° 01' 23.3" N	087° 39' 52.5" W	
1.4	ShorelineConstruction- DP2574	Sounding	[None]	41° 38' 38.9" N	087° 24' 37.5" W	
1.5	Pier- DP2575	Sounding	[None]	41° 38' 38.2" N	087° 24' 37.9" W	
1.6	Lighted Buoy A	GP	[None]	41° 51' 52.2" N	087° 36' 21.2" W	
1.7	Lighted Buoy B	GP	[None]	41° 51' 48.5" N	087° 36' 20.9" W	
1.8	Lighted Buoy C	GP	[None]	41° 51' 44.7" N	087° 36' 21.0" W	

1 - DR\_UnCharted

# 1.1) OBSTRN-3654/1

### **Survey Summary**

Survey Position:	41° 51' 05.2" N, 087° 33' 38.7" W
Least Depth:	8.54  m (= 28.01  ft = 4.669  fm = 4  fm 4.01  ft)
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-268.17:27:47.541 (09/25/2006)
Survey Line:	f00502 / 3001sb / 2006-268 / 004_1724
Profile/Beam:	3654/1
Charts Affected:	14928_1, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

This unknown contact was seen on both 100% and 200% SSS records. The contact is approximately 225m W of the charted submerged wreck (AWOIS 13031). However, the contact does not resemble a wreck so it is not believed to be AWOIS 13031. The contact looks more like a rock pile. SB investigation was conducted in a star pattern and the contact was seen on the echosounder trace. Echosounder data was corrected to Low Water Datum using observed verified tides with final zoning. The height of the contact is 1.08m and the least depth obtained on the contact was 28.01ft. Though the least depth obtained on the contact is not shoaler than the charted surrounding depth area, the height of the contact is over 1m. This contact may be significant.

#### **Feature Correlation**

Address	Feature	Range	Azimuth	Status
f00502/3001sb/2006-268/004_1724	3654/1	0.00	000.0	Primary
f00502/3001sss500k/2006-255/ch060912105900	0001	1.64	249.5	Secondary
f00502/3001sss500k/2006-255/ch060912104900	0001	2.61	033.9	Secondary

# **Hydrographer Recommendations**

Hydrographer recommends charting a submerged obstruction at this location, along with a least depth.

#### **Cartographically-Rounded Depth (Affected Charts):**

28ft (14928\_1, 14926\_31, 14927\_1, 14905\_1) 4 ½fm (14500\_1) 28ft (14901\_1)

# S-57 Data

**Geo object 1:** Obstruction (OBSTRN)

Attributes:INFORM - rock pile<br/>QUASOU - 6:least depth known<br/>SORDAT - 20061020<br/>SORIND - US,US,nsurf,F00502<br/>TECSOU - 1,2:found by echo-sounder,found by side scan sonar<br/>VALSOU - 8.538 m<br/>VERDAT - 12:Mean lower low water<br/>WATLEV - 3:always under water/submerged

# **Office Notes**

Concur w/ clarification. Rock pile with a least depth of 28 ft. appears shoaler than surrounding depths. Recommend charting submerged obstruction at this location with a least depth of 28 ft.

# 1.2) AWOIS #13029- 6308/1

#### **Survey Summary**

Survey Position:	41° 55' 54.4" N, 087° 33' 29.4" W
Least Depth:	11.52  m (= 37.80  ft = 6.300  fm = 6  fm 1.80  ft)
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-249.18:03:06.000 (09/06/2006)
Survey Line:	f00502 / 3001sb / 2006-249 / 032_1756
Profile/Beam:	6308/1
Charts Affected:	14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

This unknown contact was found within the search radius of the charted submerged wreck (AWOIS 13029). The contact was seen on both 100% and 200% SSS records. The contact could possibly be associated with the charted wreck (which was located 125m NE of this location on 200% SSS). Or it might be a completely separate obstruction. SB investigation was conducted in a star pattern and the contact was seen on the echosounder trace. Echosounder data was corrected to Low Water Datum using observed verified tides with final zoning. The height of the contact, as seen on the SB echosounder trace, is over 1m. But the least depth obtained on the contact is not shoaler than the charted surrounding depth area.

# **Feature Correlation**

Address	Feature	Range	Azimuth	Status
f00502/3001sb/2006-249/032_1756	6308/1	0.00	000.0	Primary
f00502/3001sss500k/2006-229/ch060817101800	0001	3.71	009.0	Secondary
f00502/3001sss500k/2006-229/ch060817095600	0001	4.39	260.8	Secondary

# **Hydrographer Recommendations**

Hydrographer recommends taking no action since the obstruction is so close to the wreck (AWOIS 13029) and charting current surveyed soundings.

#### **Cartographically-Rounded Depth (Affected Charts):**

38ft (14926\_31, 14927\_1, 14905\_1) 6 ¼fm (14500\_1) 6fm (14901\_1)

# S-57 Data

Geo object 1:Obstruction (OBSTRN)Attributes:QUASOU - 6:least depth known<br/>SORDAT - 20061020SORIND - US,US,nsurf,F00502TECSOU - 1,2:found by echo-sounder,found by side scan sonar<br/>VALSOU - 11.522 mVERDAT - 12:Mean lower low water<br/>WATLEV - 3:always under water/submerged

# **Office Notes**

Do not concur. The Least Depth of the Obstn is shoaler than that of the nearby wreck. Chart 38FT Obstn.

# 1.3) Pier/piles- 69GP

### **Survey Summary**

Survey Position:	42° 01' 23.3" N, 087° 39' 52.5" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-349.02:08:58 (12/15/2006)
GP Dataset:	ChartGPs - Digitized
GP No.:	69
Charts Affected:	14926_2, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Pier and piles extending to this point were visually inspected and exist as charted on 14926\_2. Items are not charted on corresponding ENC, US4IL10M.

# **Feature Correlation**

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	69	0.00	000.0	Primary

# **Hydrographer Recommendations**

Hydrographer recommends updating ENC US41L10M to match raster 14926\_2.

#### S-57 Data

**Geo object 1:** Shoreline Construction (SLCONS)

Attributes: CATSLC - 4:pier (jetty)

SORDAT - 20061017

WATLEV - 2:always dry

# **Office Notes**

Defer to MCD for charting recommendations.

# 1.4) ShorelineConstruction- DP2574

### **Survey Summary**

Survey Position:	41° 38' 38.9" N, 087° 24' 37.5" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-290.19:24:12.000 (10/17/2006)
DP Dataset:	f00502 / 3001dp_non_echosounder / 2006-290 / 10172006
Profile/Beam:	6/1
Charts Affected:	14926_13, 14929_1, 14926_32, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

This DP marks the offshore northeast end of a steel shoreline construction, which is currently charted as being submerged. The shoreline construction is exposed 3m. The hydrographer believes that this shoreline construction was recently constructed, as there exists remants of an old pier lying parallel to this one.

### **Feature Correlation**

Address	Feature	Range	Azimuth	Status
f00502/3001dp_non_echosounder/2006-290/10172006	6/1	0.00	000.0	Primary

# **Hydrographer Recommendations**

Hydrographer recommends modifying the portion of the charted shoreline construction between this DP and GP71 on the shoreline. Hydrographer recommends charting this portion of the shoreline construction as an always dry steel contruction.

# S-57 Data

Geo object 1: Shoreline Construction (SLCONS)

Attributes: CATSLC - 4:pier (jetty)

HEIGHT - 3 m

INFORM - steel

WATLEV - 2:always dry

# **Office Notes**

Defer to MCD for charting shoreline construction recommendations.

# 1.5) Pier- DP2575

# **Survey Summary**

Survey Position:	41° 38' 38.2" N, 087° 24' 37.9" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-290.19:25:35.000 (10/17/2006)
DP Dataset:	f00502 / 3001dp_non_echosounder / 2006-290 / 10172006
Profile/Beam:	7/1
Charts Affected:	14926_13, 14929_1, 14926_32, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

This DP marks the offshore end of a former pier in ruins.

# **Feature Correlation**

Address	Feature	Range	Azimuth	Status
f00502/3001dp_non_echosounder/2006-290/10172006	7/1	0.00	000.0	Primary

# **Hydrographer Recommendations**

Hydrographer recommends charting a pier in ruins extending from this DP to shore at GP72.

### S-57 Data

- Geo object 1: Shoreline Construction (SLCONS)
- Attributes:

CATSLC - 4:pier (jetty)

CONDTN - 2:ruined

INFORM - Pier in ruins

NATCON - 6:wooden

WATLEV - 2:always dry

# **Office Notes**

Defer to MCD for charting pier recommendations.

# 1.6) Lighted Buoy A

### **Survey Summary**

Survey Position:	41° 51' 52.2" N, 087° 36' 21.2" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-305.11:60:00.000 (11/01/2006)
GP Dataset:	F00502_Fugawi_Waypoints.TXT
GP No.:	1
Charts Affected:	14926_7, 14928_1, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Northerly Island Danger Buoy A (priv). These buoys are charted on the corresponding ENC as "Northerly Island Danger Lighted Buoy A Fl(1).W.2s(priv)", but no lights where seen by the field party. Buoys are not charted on 14926\_7.

### **Feature Correlation**

Address	Feature	Range	Azimuth	Status
F00502_Fugawi_Waypoints.TXT	1	0.00	000.0	Primary

# **Hydrographer Recommendations**

Hydrographer recommends updating charts and ENCs to represent present survey findings.

# S-57 Data

Geo object 1:Buoy, special purpose/general (BOYSPP)Attributes:INFORM - represent buoy without light<br/>SORDAT - 20061020

SORIND - US,US,survy,F00502

#### **Office Notes**

Concur. Looks like they are currently charted. Update chart and ENC to show buoys without lights.

# 1.7) Lighted Buoy B

### **Survey Summary**

Survey Position:	41° 51' 48.5" N, 087° 36' 20.9" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-305.11:60:00.000 (11/01/2006)
GP Dataset:	F00502_Fugawi_Waypoints.TXT
GP No.:	2
Charts Affected:	14926_7, 14928_1, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Northerly Island Danger Buoy B (priv). These buoys are charted on the corresponding ENC as "Northerly Island Danger Lighted Buoy B Fl(1).W.2s(priv)", but no lights where seen by the field party. Buoys are not charted on 14926\_7.

### **Feature Correlation**

Address	Feature	Range	Azimuth	Status
F00502_Fugawi_Waypoints.TXT	2	0.00	000.0	Primary

# **Hydrographer Recommendations**

Hydrographer recommends updating charts and ENCs to represent present survey findings.

# S-57 Data

Geo object 1:Buoy, special purpose/general (BOYSPP)Attributes:INFORM - represent buoy without light<br/>SORDAT - 20061020

SORIND - US,US,survy,F00502

# **Office Notes**

Concur. Looks like they are currently charted. Update chart and ENC to show buoys without lights.

# **1.8) Lighted Buoy C**

### **Survey Summary**

Survey Position:	41° 51' 44.7" N, 087° 36' 21.0" W
Least Depth:	[None]
<b>TPU</b> (±1.96σ):	THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp:	2006-305.11:60:00.000 (11/01/2006)
GP Dataset:	F00502_Fugawi_Waypoints.TXT
GP No.:	3
Charts Affected:	14926_7, 14928_1, 14926_31, 14927_1, 14905_1, 14901_1, 14500_1

#### **Remarks:**

Northerly Island Danger Buoy C (priv). These buoys are charted on the corresponding ENC as "Northerly Island Danger Lighted Buoy C Fl(1).W.2s(priv)", but no lights where seen by the field party. Buoys are not charted on 14926\_7.

### **Feature Correlation**

Address	Feature	Range	Azimuth	Status
F00502_Fugawi_Waypoints.TXT	3	0.00	000.0	Primary

# **Hydrographer Recommendations**

Hydrographer recommends updating charts and ENCs to represent present survey findings.

# S-57 Data

Geo object 1:Buoy, special purpose/general (BOYSPP)Attributes:INFORM - represent buoy without light<br/>SORDAT - 20061020

SORIND - US,US,survy,F00502

# **Office Notes**

Concur. Looks like they are currently charted. Update chart and ENC to show buoys without lights.

# APPENDIX III FINAL PROGRESS SKETCH AND SURVEY

# APPENDIX IV TIDES AND WATER LEVELS



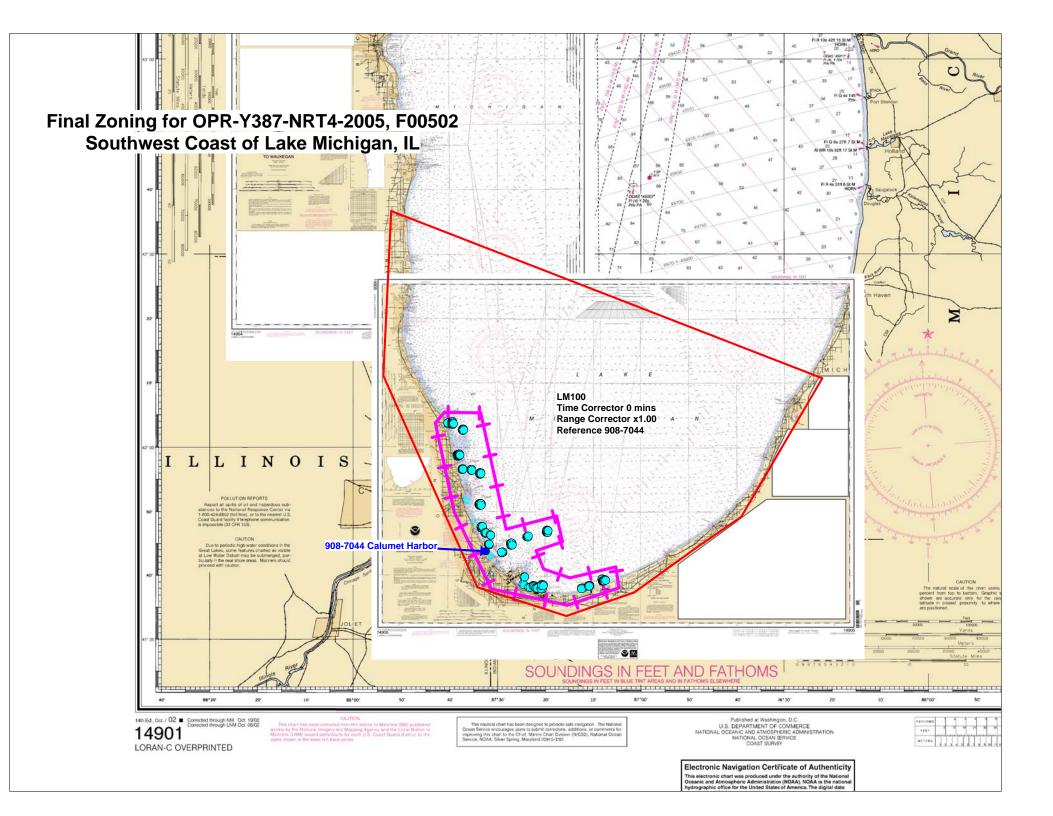
UNITED STATES DEPARMENT OF COMMERCE National Oceanic and Atmospheric Administration National Ocean Service Silver Spring, Maryland 20910



#### Final tide zone node point locations for OPR-Y387-NRT4-2005, F00502

Format: Tide Station (in recommended order of use) Average Time Correction (in minutes) Range Correction Longitude in decimal degrees (negative value denotes Longitude West), Latitude in decimal degrees

	Tide Station	AVG Time	Range
	Order	Correction	Correction
Zone LM100	908-7044	0	1.00
-87.867545 42.610412			
-87.894816 42.185909			
-87.567561 41.635871			
-87.258487 41.560806			
-87.022135 41.622229			
-86.803183 41.740456			
-86.649428 41.819747			
-86.367625 42.179147			
-87.186569 42.414984			
-87.867545 42.610412			



# APPENDIX V SUPPLEMENTAL SURVEY AND CORRESPONDENCE

From: "Lucy Massimillo" <Lucy.Massimillo@noaa.gov> To: "\_NESDIS NGDC Hydro Information" <hydro.info@noaa.gov> Cc: "Lawrence.T.Krepp" <Lawrence.T.Krepp@noaa.gov>; "Shepard Smith" <Shep.Smith@noaa.gov> Subject: F00502 Data Date: Wednesday, February 06, 2008 1:38 PM

Acquisition for the Chicago Field Examination project, OPR-Y387-NRT4-05 F00502, was completed in November 2006. Unfortunately, processing & reporting for this project got put on the back burner. I was in Alabama working with NRT1 for the first four months of 2007, while our trailer & computers were in Michigan. Once, we arrived in Ohio, my priorities switched to completing the Erie & Cleveland projects and training the new employees. I spent the last two months of the year on maternity leave.

Well, I have finally had a chance to look into the NRT4 project backlog. Processing & reporting for F00502 is just about complete and will be submitted soon.

Survey: F00502 Project: OPR-Y387-NRT4-05 Survey Platform: S3001 Raw Data Directory Size: 8.88 GB Processed Directory Size: 3.85 GB

Regards, Lucy Massimillo

From: "Andrew Seaman" <Andrew.Seaman@noaa.gov> To: "Lucy Massimillo" <Lucy.Massimillo@noaa.gov> Subject: Re: F00502 Data Date: Wednesday, February 06, 2008 1:41 PM

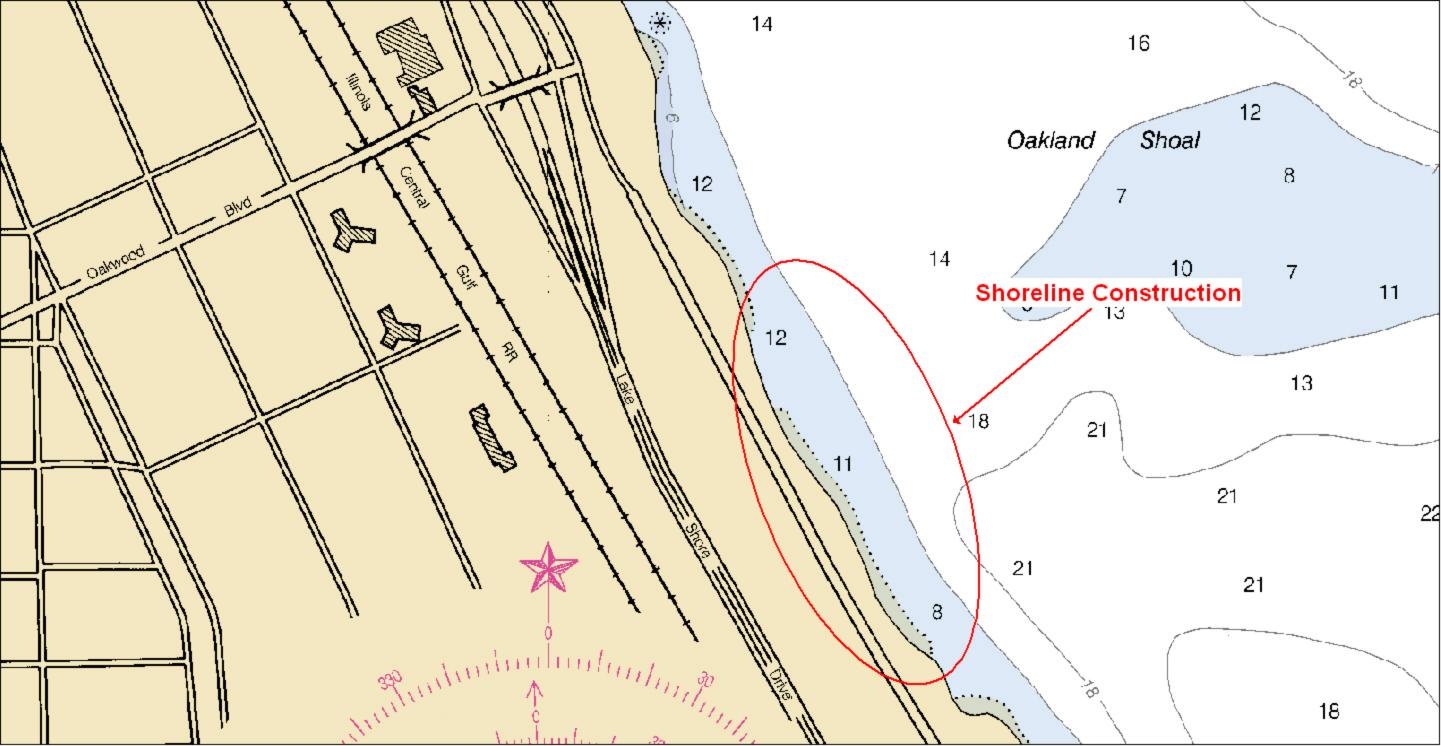
Hi Lucy,

Thanks for the info. It is much appreciated as we are trying to get a handle on the projected data volumes.

```
Congrats on your new baby!
Andrew
```

LTJG Andrew P. Seaman, NOAA Manager, NOS Hydrographic Database National Geophysical Data Center 325 Broadway E/GC3 Boulder, CO 80305 PHONE: 303-497-6390 CELL: 757-620-8883 FAX: 303-497-6513

--





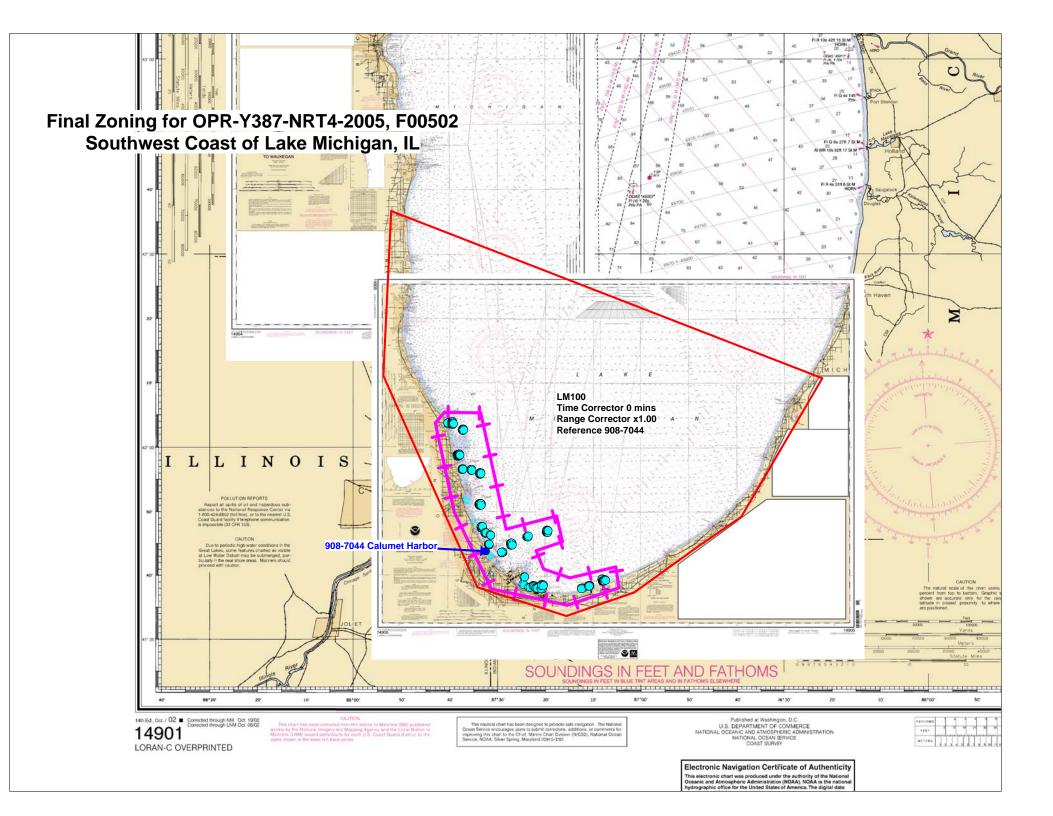
UNITED STATES DEPARMENT OF COMMERCE National Oceanic and Atmospheric Administration National Ocean Service Silver Spring, Maryland 20910



#### Final tide zone node point locations for OPR-Y387-NRT4-2005, F00502

Format: Tide Station (in recommended order of use) Average Time Correction (in minutes) Range Correction Longitude in decimal degrees (negative value denotes Longitude West), Latitude in decimal degrees

	Tide Station	AVG Time	Range
	Order	Correction	Correction
Zone LM100	908-7044	0	1.00
-87.867545 42.610412			
-87.894816 42.185909			
-87.567561 41.635871			
-87.258487 41.560806			
-87.022135 41.622229			
-86.803183 41.740456			
-86.649428 41.819747			
-86.367625 42.179147			
-87.186569 42.414984			
-87.867545 42.610412			



This Document is for Office Process use only and is intended to supplement, not supersede or replace, information/recommendations in the Descriptive or Evaluation Reports

# AHB PRE-COMPILATION PROCESS

REGISTRY No.	FE00502
PROJECT No.	OPR-Y387-NRT4-05
FIELD UNIT	NRT4
PRE-COMPILER	KELLY SCHILL
LARGEST SCALE CHART	14927, edition 25, 20060801
	14926, edition 11, 20060501
	14928, edition 22, 20050401
	14929, edition 24, 20030201
CHART SCALE	1:60,000
	1:60,000
	1:15,000
	1:15,000
SURVEY SCALE	1:10,000
DATE OF SURVEY	August to November 2006
CONTENT REVIEW DATE	October 2, 2008

Components	File Names
Product Surface	PS_XXXXXX_XXk_XXXmrad_XXXmres.hns
Shifted Surface	PS_XXXXXX_XXk_XXXmrad_XXXmres_Shifted.hns
Contour Layer	PS_XXXXXX_XXk_XXXmrad_XXXmres_Contours.hob
Survey Scale Soundings	F00502_SS_Soundings.hob
Chart Scale Soundings	F00502_CS_Soundings.hob
ENC Retain Soundings	XXXXXX_ENC_Retain_Soundings
Feature Layer	F00502_Features_Import.hob
Meta-Objects Layer	XXXXXX_MetaObjects.hob
Blue Notes	F00502_BlueNotes.hob

SPECIFICATIONS:

- I. COMBINED SURFACE: Only one finalized grid so a combine surface was not created. The finalized grid is at a 5 meter resolution.
  - a. File name: N/A
  - b. Resolution: <u>N/A</u> m
  - c. Final Grid Location: <u>N/A</u>
- II. PRODUCT SURFACE (SOUNDINGS): N/A
  - a. Scale: 1:\_\_\_\_\_
  - b. Radius: \_\_\_\_m
  - c. Resolution: \_\_\_\_m
  - d. Depth
    - i. Minimum: \_\_\_\_\_m
    - ii. Maximum: \_\_\_\_\_m
  - PRODUCT SURFACE (CONTOURS): N/A
  - a. Scale: 1:\_\_\_\_\_
  - b. Radius: \_\_\_\_\_m

#### Version 1.0

This Document is for Office Process use only and is intended to supplement, not supersede or replace, information/recommendations in the Descriptive or Evaluation Reports

	information/recommendations in t	he Descriptive or Evaluation Reports
	c. Resolution:m	
III.	SHIFTED SURFACE:	
	Single Shift Value: <u>N/A</u>	$[-0.229m (feet), (\le 10 fathoms)]$
	-	[-1.372m (fathoms), (> 10 fathoms)]
IV.	Contour Layer: N/A	
	a. Use a Depth List: XXXXXX_N	IOAA depth curves list.txt
	Depth List:	
	L L	
	b. Output Options:	
	i. Create contour lines:	
	1. Line Object: D	EPCNT
	2. Value Attribute	e: <u>VALDCO</u>
V.	SOUNDING SELECTION:	
	a. Selection Criteria:	
	i. <u>Radius</u>	
	ii. Shoal biased	
		dius: <u>distance on ground (m)</u>
	iv. Filter: Generalized !=1	
VI.	FEATURES:	
	a. Brought in from Survey	
	Total No. <u>40</u>	
	b. Brought in from ENC	
	ENC: # 0	_
	Total No. <u>40</u>	
VII.	Meta-objects: N/A	
VII.	META-OBJECTS: N/A a. M_COVR attributes	
		Value
SORDAT	a. M_COVR attributes	Value
SORDAT CATCOV	a. M_COVR attributes	Value
SORDAT	a. M_COVR attributes Acronym	Value
SORDAT CATCOV	a. M_COVR attributes Acronym b. M_QUAL attributes	
SORDAT CATCOV SORIND	a. M_COVR attributes Acronym	Value
SORDAT CATCOV SORIND	a. M_COVR attributes Acronym b. M_QUAL attributes	Value
SORDAT CATCOV SORIND CATZOC INFORM	a. M_COVR attributes Acronym b. M_QUAL attributes	
SORDAT CATCOV SORIND CATZOC INFORM POSACC	a. M_COVR attributes Acronym b. M_QUAL attributes	Value
SORDAT CATCOV SORIND CATZOC INFORM POSACC SORDAT	a. M_COVR attributes Acronym b. M_QUAL attributes	Value
SORDAT CATCOV SORIND CATZOC INFORM POSACC SORDAT SORIND	a. M_COVR attributes Acronym b. M_QUAL attributes	Value
SORDAT CATCOV SORIND CATZOC INFORM POSACC SORDAT SORIND SUREND	a. M_COVR attributes Acronym b. M_QUAL attributes	Value
SORDAT CATCOV SORIND CATZOC INFORM POSACC SORDAT SORIND SUREND SUREND SURSTA	a. M_COVR attributes Acronym b. M_QUAL attributes	Value
SORDAT CATCOV SORIND CATZOC INFORM POSACC SORDAT SORIND SUREND	a.       M_COVR attributes         Acronym         b.       M_QUAL attributes         Acronym	Value
SORDAT CATCOV SORIND CATZOC INFORM POSACC SORDAT SORIND SUREND SUREND SURSTA	<ul> <li>a. M_COVR attributes Acronym</li> <li>b. M_QUAL attributes Acronym</li> <li>c. DEPARE attributes</li> </ul>	Value Registry Number, Project Number, Vessel
SORDAT CATCOV SORIND CATZOC INFORM POSACC SORDAT SORIND SUREND SUREND SURSTA TECSOU	<ul> <li>a. M_COVR attributes Acronym</li> <li>b. M_QUAL attributes Acronym</li> <li>c. DEPARE attributes Acronym</li> </ul>	Value
SORDAT CATCOV SORIND CATZOC INFORM POSACC SORDAT SORIND SUREND SUREND SURSTA TECSOU	a. M_COVR attributes Acronym b. M_QUAL attributes Acronym c. DEPARE attributes Acronym 1	Value Registry Number, Project Number, Vessel
SORDAT CATCOV SORIND CATZOC INFORM POSACC SORDAT SORIND SUREND SUREND SURSTA TECSOU	a. M_COVR attributes Acronym b. M_QUAL attributes Acronym c. DEPARE attributes Acronym 1	Value Registry Number, Project Number, Vessel
SORDAT CATCOV SORIND CATZOC INFORM POSACC SORDAT SORIND SUREND SUREND SURSTA TECSOU DRVALV2 SORDAT	a. M_COVR attributes Acronym b. M_QUAL attributes Acronym c. DEPARE attributes Acronym 1	Value Registry Number, Project Number, Vessel
SORDAT CATCOV SORIND CATZOC INFORM POSACC SORDAT SORIND SUREND SUREND SURSTA TECSOU	a. M_COVR attributes Acronym b. M_QUAL attributes Acronym c. DEPARE attributes Acronym 1	Value Registry Number, Project Number, Vessel
SORDAT CATCOV SORIND CATZOC INFORM POSACC SORDAT SORIND SUREND SUREND SURSTA TECSOU DRVALV2 SORDAT	a.       M_COVR attributes         Acronym         b.       M_QUAL attributes         Acronym         c.       DEPARE attributes         Acronym         1         2         d.       M_CSCL attributes	Value         Registry Number, Project Number, Vessel         Value
SORDAT CATCOV SORIND CATZOC INFORM POSACC SORDAT SORIND SUREND SUREND SURSTA TECSOU DRVALV2 SORDAT	a. M_COVR attributes Acronym b. M_QUAL attributes Acronym c. DEPARE attributes Acronym 1	Value Registry Number, Project Number, Vessel

#### SORDAT

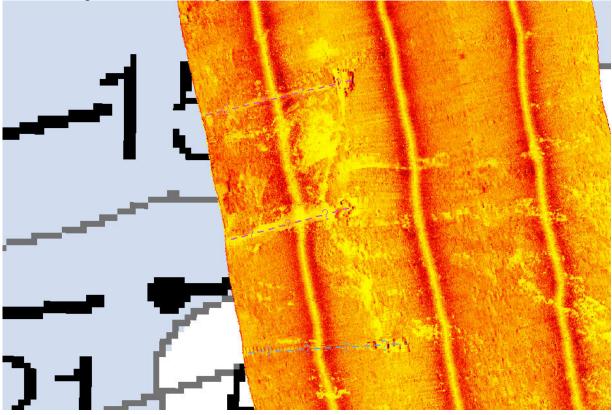
#### Version 1.0

This Document is for Office Process use only and is intended to supplement, not supersede or replace, information/recommendations in the Descriptive or Evaluation Reports

#### SORIND

#### VIII. NOTES:

1. DR mentions pipeline locations are inaccurate. So opened mosaic in HIPS/SIPS to be used as a guideline for creating the bluenotes in BASE.



#### ATLANTIC HYDROGRAPHIC BRANCH EVALUATION REPORT to ACCOMPANY SURVEY F00502 (2005)

This Evaluation Report has been written to supplement and/or clarify the original Descriptive Report. Sections in this report refer to the corresponding sections of the Descriptive Report.

#### B. DATA ACQUISITION AND PROCESSING

#### **B.1 DATA PROCESSING**

The following software was used to process data at the Atlantic Hydrographic Branch:

HSTP PYDRO version 8.7 r2519 CARIS HIPS/SIPS version 6.1 SP2 HF 1-2 CARIS Bathy Manager version 2.1 HF 1-9 CARIS HOM version 3.3 CARIS S57 Composer version 2.0

#### **B.2. QUALITY CONTROL**

#### B.2.1. H-Cell

The AHB source depth grid for the survey's nautical chart update product entailed the field's original 5m grids. The selected sounding set is approximately 10 to 20 times the number of charted depths. The chart scale selected soundings are a subset of the survey scale selected soundings. The surface model was referenced when selecting the chart scale soundings, to ensure that the selected soundings portrayed the bathymetry within the common area.

The pre-compilation products or components (Stand Alone HOB files (SAHOB)) are detailed in the Pre-Compile Process Log attached prior to this document. The SAHOB files included sounding selections (SOUNDG), features (SBDARE), and cartographic Blue Notes. The individual SAHOB files were inserted into one BASE Manager feature layer and exported to S57 format in order to create the H-Cell deliverable. See attached document for a list of all suggested cartographic actions.

The completed H-Cell was exported as a Base Cell File (ENC.000) in S-57 format with all values in metric units. The metric equivalent ENC.000 file was then converted to NOAA chart units (ENC\_CU.000) with all values measured in feet following NOAA sounding rounding rules.

Chart compilation was performed by Atlantic Hydrographic Branch personnel in Norfolk, Virginia. Compilation data will be forwarded to Marine Chart Division, Silver Spring, Maryland.

The F00502 CARIS H-Cell final deliverables include the following products:

US400502_CS.000	1:10,000 Scale	F00502 H-Cell with Chart Scale Selected Soundings
US400502_SS.000	1:10,000 Scale	F00502 Selected Soundings (Survey Scale)

#### D. RESULTS AND RECOMMENDATIONS

D.1 <u>CHART COMPARISON</u>	14927 (25 <sup>th</sup> Edition, Aug./06)
	Corrected through NM 08/26/2006
	Corrected through LNM 08/22/2006
	Scale 1:60,000
	<u>14926 (11<sup>th</sup> Edition, May/06)</u>
	Corrected through NM 05/27/2006
	Corrected through LNM 05/16/2006
	Scale Various
	14928(22nd Edition, Apr./05)
	Corrected through NM 04/30/2005
	Corrected through LNM 04/19/2005
	Scale 1:15,000
	14929 (24th Edition, Feb./03)
	Corrected through NM 02/01/2003
	Corrected through LNM 12/17/2003
	Scale 1:15,000
ENC Comparison	US4IL10M
	Chicago Lake Front
	Edition 3
	Application Date 2008-06-09
	Issue Date 2008-06-09
	Chart 14927
	<u>US4IN01M</u>
	Lake Michigan Waukegan Ill to South Haven Mich
	Edition 5
	Application Date 2007-05-14 Issue Date 2008-08-25
	Chart 14905
D 2 MICCELLANEOLIC	

#### D.3. MISCELLANEOUS

Chart compilation was done by Atlantic Hydrographic Branch personnel, in Norfolk, Virginia. Compilation data will be forwarded to Marine Chart Division, Silver Spring, Maryland. See Section D.1. of this report for a list of the Raster Charts and Electronic Navigation Charts (ENC) used for compiling the present survey.

#### D.4. ADEQUACY OF SURVEY

The present survey is adequate to supersede the charted bathymetry within the common area. Any features not specifically addressed either in the H-Cell BASE Cell File or the Blue Notes should be retained as charted. Refer to the Descriptive Report for further recommendations by the hydrographer.

#### APPROVAL SHEET F00502

#### Initial Approvals:

The completed survey has been inspected with regard to survey coverage, delineation of depth curves, representation of critical depths, cartographic symbolization, and verification or disproval of charted data. All revisions and additions made to the H-Cell files during survey processing have been entered in the digital data for this survey. The survey records and digital data comply with National Ocean Service and Office of Coast Survey requirements except where noted in the Descriptive Report and the Evaluation Report.

All final products have undergone a comprehensive reviews per the Hydrographic surveys Division Office Processing Manual and are verified to be accurate and complete except where noted.

> **Kelly Schill** Hydrographic Intern Atlantic Hydrographic Branch

> Sarah M. Eggleston Physical Scientist Atlantic Hydrographic Branch

I have reviewed the H-Cell files, accompanying data, and reports. This survey and accompanying Marine Chart Division deliverables meet National Ocean Service requirements and standards for products in support of nautical charting except where noted.

Approved:

Shepard Smith Lieutenant Commander, NOAA Chief, Atlantic Hydrographic Branch

# F00502 Feature and Bluenote Cartographic Actions

	1	ure and Bluenote	Cartographic Actions
\$CSYMB	41-37-26.8896000N	087-19-25.8960000W	Update light to red light
\$CSYMB	41-37-54.7377600N	087-20-43.6192800W	Delete charted sounding.
OBSTRN	41-37-57.2984400N	087-12-10.2078000W	Add 16ft crib. See also associated bluenote.
\$CSYMB	41-37-59.4764400N	087-12-13.3632000W	Delete charted 15ft crib.
\$CSYMB	41-38-07.5228000N	087-23-11.7272400W	Delete charted Vis. WK PA.
WRECKS	41-38-07.9227600N	087-23-17.7910800W	Add WK PA.See also associated bluenote.
\$CSYMB	41-38-18.7890000N	087-10-47.5456800W	Delete charted sounding.
\$CSYMB	41-38-22.1492400N	087-22-16.6522800W	Retain as charted.
OBSTRN	41-38-23.0128800N	087-10-43.9899600W	Add 25ft crib.See also associated bluenote.
\$CSYMB	41-38-23.9078400N	087-10-45.0973200W	Delete charted 28ft crib.
OBSTRN	41-38-26.3270400N	087-20-32.7818400W	Modify crib LD to 32ft.
OBSTRN	41-38-31.2414000N	087-20-31.2748800W	Modify crib LD to 31ft.
\$CSYMB	41-38-31.5549600N	087-20-28.7646000W	Delete Vis. Wk. PA.
WRECKS	41-38-43.3471200N	087-25-38.7087600W	Modify subm. WK to Vis WK.
WRECKS	41-38-46.2195600N	087-25-44.3020800W	Modify subm. WK to Vis WK.
\$CSYMB	41-38-49.9426800N	087-07-38.7447600W	Delete private buoy W or "A".
\$CSYMB	41-38-50.1590400N	087-07-16.1968800W	Delete private buoy W or "E"
\$CSYMB	41-38-53.6154000N	087-07-19.1499600W	Delete private buoy W or "D".
\$CSYMB	41-38-53.6960400N	087-07-33.4354800W	Delete private buoy W or "B".
\$CSYMB	41-38-54.4714800N	087-07-27.2229600W	Delete private buoy W or "C".
\$CSYMB	41-39-11.0368800N	087-07-55.2842400W	Delete Rep (1992) note.
\$CSYMB	41-39-11.1841200N	087-07-48.8038800W	Delete charted sounding.
OBSTRN	41-39-13.8430800N	087-07-36.6628800W	Add 37ft crib. See also associated bluenote.
\$CSYMB	41-39-13.8571200N	087-07-35.0194800W	Delete charted 38ft crib.
\$CSYMB	41-39-15.3097200N	087-07-29.3959200W	Retain crib as charted
\$CSYMB	41-39-27.0018000N	087-08-00.1582800W	Delete 42 ft. obstn.
\$CSYMB	41-39-46.0893600N	087-24-16.6878000W	Delete charted 27ft crib.
OBSTRN	41-39-47.4314400N	087-24-18.6087600W	Add 26ft crib. See also associated bluenote.
\$CSYMB	41-40-45.7816800N	087-28-53.2210800W	Modify Vis. Dol to Subm. Dol.
\$CSYMB	41-40-46.4142000N	087-28-52.7606400W	Modify Vis. Dol to Subm. Dol.
\$CSYMB	41-40-51.9970800N	087-28-23.2996800W	Delete private marker W or "A".
OBSTRN	41-41-21.5138400N	087-30-00.9212400W	Modify Vis. Pile to Subm. Pile
OBSTRN	41-41-22.2680400N	087-30-01.0249200W	Modify Vis. Pile to Subm. Pile
OBSTRN	41-41-22.5250800N	087-30-00.6915600W	Modify Vis. Pile to Subm. Pile
OBSTRN	41-41-23.1331200N	087-30-01.1476800W	Modify Vis. Pile to Subm. Pile
OBSTRN	41-42-31.8031200N	087-31-25.2084000W	Modify vis. File to Subin. File Modify charted crib to crib in ruins.
\$CSYMB	41-42-31.8031200N	087-28-53.2128000W	Delete charted Obstn.
\$CSYMB	41-43-55.7821200N	087-31-41.7136800W	Delete charted dol.
\$CSYMB	41-43-56.0190000N	087-31-43.4330400W	Delete charted dol.
-			
\$CSYMB	41-44-14.8826400N	087-31-40.5296400W	Delete charted mooring buoy.
\$CSYMB	41-44-15.8542800N	087-31-38.6803200W	Delete charted mooring buoy.
WRECKS	41-44-49.8044400N	087-31-43.8276000W	Add 21ft. WK. See also associated bluenote.
\$CSYMB	41-44-50.8038000N	087-31-39.9151200W	Delete Wk PA.
\$CSYMB	41-44-55.9536000N	087-27-02.3104800W	Delete subm. WK PA.
WRECKS	41-44-59.0182800N	087-26-56.4111600W	Add 37ft WK. See also associated bluenote.
WRECKS	41-46-04.9389600N	087-23-30.2312400W	Add 25ft. WK. See also associated bluenote.
\$CSYMB	41-46-04.9785600N	087-23-35.9678400W	Delete charted WK.
WRECKS	41-46-20.4891600N	087-31-19.5477600W	Modify charted 19ft. WK to 20ft. WK.
\$CSYMB	41-46-39.1634400N	087-32-20.0083200W	Delete charted 22ft. crib
OBSTRN	41-46-41.1222000N	087-32-21.5005200W	Add 26ft. crib. See also associated bluenote.
\$CSYMB	41-46-53.7315600N	087-19-27.2679600W	Delete WK PA
\$CSYMB	41-46-57.3920400N	087-19-37.3756800W	Delete charted sounding.
OBSTRN	41-47-32.6886000N	087-33-08.6328000W	Modify reef LD to 14ft.

\$CSYMB	41-47-33.6343200N	087-33-01.6614000W	Delete charted sounding
\$CSYMB	41-47-55.0545200N 41-48-26.7458400N	087-35-00.1356000W	Delete charted 1ft Obstn.
WRECKS	41-48-29.7021600N	087-35-00.1388400W	Add Vis. WK. See also associated bluenote.
UWTROC	41-51-05.1199200N	087-33-38.7734400W	Add Vis. WK. See also associated bidenote.
\$CSYMB	41-51-06.2780400N	087-33-28.9558800W	Delete WK. PA.
\$CSYMB	41-51-44.7411600N	087-36-20.8256400W	Retain Buoy. Delete Light.
\$CSYMB	41-51-48.4167600N	087-36-20.8605600W	Retain Buoy. Delete Light.
\$CSYMB	41-51-52.1377200N	087-36-20.9563200W	Retain Buoy. Delete Light.
\$CSYMB	41-53-27.2317200N	087-36-16.9275600W	Delete charted hulk.
\$CSYMB	41-53-42.2098800N	087-35-27.4560000W	Modify charted crib to crib in ruins.
OBSTRN	41-54-10.5894000N	087-36-33.4713600W	Modify Vis. Pile to Subm. Pile
OBSTRN	41-54-10.9987200N	087-36-33.1246800W	Modify Vis. Pile to Subm. Pile
OBSTRN	41-54-11.0242800N	087-36-26.1658800W	Modify Vis. Pile to Subm. Pile
OBSTRN	41-54-11.3900400N	087-36-33.5905200W	Modify Vis. Pile to Subm. Pile
OBSTRN	41-54-11.4901200N	087-36-27.2217600W	Modify Vis. Pile to Subm. Pile
OBSTRN	41-54-11.7486000N	087-36-26.0622000W	Modify Vis. Pile to Subm. Pile
OBSTRN	41-55-54.3943200N	087-33-29.3731200W	Add 38ft. Obstn.
\$CSYMB	41-55-56.1612000N	087-33-25.4592000W	Delete charted WK PA.
WRECKS	41-55-58.2650400N	087-33-27.5140800W	Add 41ft WK. See also associated bluenote.
\$CSYMB	41-56-29.8737600N	087-35-18.7692000W	Delete WK PA.
\$CSYMB	41-56-30.9069600N	087-35-24.1594800W	Delete charted sounding.
WRECKS	41-56-32.7159600N	087-35-09.5636400W	Add 30ft. WK. See also associated bluenote.
\$CSYMB	41-56-35.3212800N	087-37-09.8551200W	Delete charted sounding.
OBSTRN	41-56-36.0600000N	087-37-12.5349600W	Add 17ft. Obstn. See also associated bluenote.
\$CSYMB	41-56-37.1414400N	087-37-10.0779600W	Delete charted Obstn. PA (Rep 2002)
\$CSYMB	41-56-39.9944400N	087-37-12.3942000W	Delete charted sounding.
\$CSYMB	41-56-48.8670000N	087-37-53.7261600W	Delete charted mooring buoy.
\$CSYMB	41-57-00.7045200N	087-38-00.2047200W	Delete charted mooring buoy.
\$CSYMB	41-58-45.1052400N	087-38-10.9946400W	Delete charted WK Rep.
\$CSYMB	41-58-49.7053200N	087-37-51.0866400W	Delete charted WK PA.
\$CSYMB	42-02-41.9600400N	087-37-06.0409200W	Delete charted WK PA.
WRECKS	42-02-43.3280400N	087-37-05.1045600W	Add 28ft. WK. See also associated bluenote.
\$CSYMB	42-03-41.1238800N	087-39-10.7488800W	Delete charted crib
OBSTRN	42-03-46.8529200N	087-39-13.4380800W	Add 20ft. crib. See also associated bluenote.
\$CSYMB	42-03-47.9444400N	087-40-17.2707600W	Delete charted sounding.
\$CSYMB	42-03-49.2836400N	087-39-12.5834400W	Delete charted crib.
OBSTRN	42-03-50.5620000N	087-39-14.7978000W	Add 25ft crib. See also associated bluenote.
OBSTRN	42-03-55.3309200N	087-39-15.3903600W	Add 20ft crib. See also associated bluenote.
\$CSYMB	42-03-56.7806400N	087-39-13.3614000W	Delete charted crib.
\$LINES			Pipelines appear in sidescan to follow this positioning.
\$LINES			Pipelines appear in sidescan to follow this positioning.
\$LINES			Pipelines appear in sidescan to follow this positioning.
\$LINES			Recommend acquiring updated RSD shoreline
\$LINES			Recommend acquiring updated RSD shoreline
\$LINES			Recommend acquiring updated RSD shoreline
\$LINES			Recommend acquiring updated RSD shoreline
\$LINES			Recommend acquiring updated RSD shoreline
\$LINES			Recommend charting new HWL as depicted and
			acquiring updated RSD shoreline